CITY OF MERCED

Meeting Agenda

City Council Chamber
Merced Civic Center
2nd Floor
678 W. 18th Street
Merced, CA 95340

City Council/Public Finance and Economic Development Authority/Parking Authority

Wednesday, April 20, 2016 **5:30 PM** **City Council Chamber, 2nd Floor, Merced Civic Center, 678 W. 18th Street, Merced, CA 95340**

Study Session at 5:30 PM

NOTICE TO PUBLIC

WELCOME TO THE SPECIAL MEETING OF THE MERCED CITY COUNCIL

PUBLIC COMMENT: OBTAIN SPEAKER CARD FROM THE CITY CLERK

Members of the audience who wish to address the City Council are requested to complete a speaker card available at the podium against the right-hand side of the Council Chambers. Please submit the completed card to the City Clerk before the item is called, preferably before the meeting begins.

INDIVIDUALS WITH DISABILITIES

Accommodation for individuals with disabilities may be arranged by contacting the City Clerk at (209) 388-8650. Assisted hearing devices are available for meetings held in the Council Chambers

A. CALL TO ORDER

A.1. Pledge of Allegiance to the Flag

B. STUDY SESSION ROLL CALL

C. STUDY SESSION

C.1. 16-161 **SUBJECT:** Medical Marijuana Study Session

REPORT IN BRIEF

Provides a brief overview of medical marijuana issues at the state and local level, answers questions raised by the City Council relating to medical marijuana, and outlines potential amendments for the City Council to consider regarding existing bans on medical marijuana dispensaries, deliveries and cultivation.

RECOMMENDATION

Staff recommends that the City Council take public testimony regarding the medical marijuana issue as it relates to dispensaries, deliveries and cultivation within the City of Merced and either:

A. Provide direction to staff regarding specific modifications to the City's existing bans on dispensaries, deliveries and/or cultivation of medical marijuana within the City; or,

B. Schedule another study session on this matter regarding medical marijuana in general or specifically relating to dispensaries, deliveries and/or cultivation; or,

C. Take no further action regarding medical marijuana at this time.

D. WRITTEN PETITIONS AND COMMUNICATIONS

E. ORAL COMMUNICATIONS

F. BUSINESS

F.1. Provide Direction on Ordinance Relating to Medical Marijuana

G. ADJOURNMENT

ADMINISTRATIVE REPORT

File #: 16-161 Meeting Date: 4/20/2016

Report Prepared by: *Kenneth Rozell, Senior Deputy City Attorney*

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C. Take no further action regarding medical marijuana at this time.

AUTHORITY
City of Merced Charter, Section 200.

CITY COUNCIL PRIORITIES
Not Applicable.

DISCUSSION

Background

On October 9, 2015, Governor Jerry Brown signed into law three bills (AB 266, AB 243, and SB 643) that together are entitled the Medical Marijuana Regulation & Safety Act (MMRSA). The three bills established a comprehensive regulatory structure around the state's multi-billion dollar medical marijuana industry.

The legislation creates a dual licensing structure that requires a state and local license or permit in order to cultivate, dispense, or transport medical marijuana. Cities that wish to ban these land use activities are allowed to do so. However, if there is no local licensing requirement, the State Department of Food and Agriculture becomes the sole licensing authority. AB 243 originally included a provision stating that cities that did not regulate or prohibit cultivation before March 1, 2016 would lose the authority to regulate or ban cultivation within their city limits (former Business and Professions Code Section 11362.777, subd. (c)(4)).

In response to this original language in AB 243, the League of California Cities recommended cities immediately adopt an ordinance to ban or regulate the cultivation of medical marijuana to avoid losing local control of land use regulations. Because of the considerable lead time required for these ordinances to go into effect before March 1, 2016, cities had very limited time in which to consider this issue prior to the March 1, 2016 deadline.

Merced has historically banned all medical marijuana uses within the City (including medical marijuana dispensaries) based upon the language of Merced Municipal Code Section 20.06.050(E) that provides:

> "No use that is prohibited, unlawful, violates or is inconsistent with federal or state law, or any provision in this code, shall be allowed or permitted in any district under this title."

Based upon the City's existing policies, City staff presented an ordinance for consideration by the Planning Commission that would have prohibited all commercial medical marijuana uses and activities, including delivery, in all zones and all specific plan areas in the City of Merced; and prohibited the cultivation of any amount of marijuana for medical use by a qualified patient in all zones and specific plan areas in the City of Merced.

The Planning Commission considered the proposed ordinance at a public hearing held on December 9, 2015. After extensive deliberations, the Planning Commission recommended by a 6-0-1 vote (6 ayes, 0 noes, 1 absent) that the City Council adopt the ordinance after the following changes had been made to it:

a) Allow medical marijuana dispensaries in some commercial zones (those zones to be determined by staff); and,

b) Allow delivery of medical marijuana if it begins within one of those allowed commercial zones; and,

c) Consistent with the regulations of the County, allow the growth of up to 12 medical marijuana plants for personal use per lot.

City staff prepared a new ordinance consistent with the direction of the Planning Commission.

At its meeting on January 4, 2016, the City Council first held a study session on medical marijuana issues and then subsequently held a public hearing regarding medical marijuana. After taking public

testimony and extensive deliberations, the City Council voted 7 to 0 to introduce Ordinance No. 2454, which prohibits all commercial medical marijuana uses in the City and prohibits cultivation of marijuana for medical use by a qualified patient or primary caregiver. However, as part of the motion introducing Ordinance No. 2454, the City Council directed staff to schedule multiple study sessions after the effective date of the ordinance to consider the City's options relating to medical marijuana within the City (including dispensaries, delivery and cultivation). On January 19, 2016, the City Council adopted Ordinance No. 2454, which become effective 30 days later on February 18, 2016.

On March 1, 2016, the City held a special meeting to discuss medical marijuana. At that meeting, the City Council took public testimony and considered issues relating to medical marijuana dispensaries, delivery of medical marijuana from licensed dispensaries and if medical marijuana would be allowed to be cultivated within the City by primary caregivers or qualified patients.

At that meeting, the City Council asked that staff provide answers to specific questions at the next meeting regarding medical marijuana, as well as to provide a copy of the 2008 California Attorney General Guidelines relating to medical marijuana. Finally, the City Council asked that staff prepare a draft medical marijuana ordinance for consideration by the City Council.

Discussion

1. *Draft Ordinance Regarding Medical Marijuana Dispensaries, Deliveries and Cultivation*

Pursuant to the City Council's direction at the March 1, 2016 special meeting, staff has prepared a draft medical marijuana ordinance that addresses three specific areas - medical marijuana dispensaries, delivery and cultivation. (See Attachment 1.) Before, however, the ordinance can be finalized and scheduled for a public hearing before the Planning Commission, the City Council will first need to provide specific direction on the following questions:

A. *Dispensaries*

1. Does the City Council wish to allow medical marijuana dispensaries within the City of Merced?

2. If so, in which zone(s) would dispensaries be allowed? (Maps depicting the commercial zones within the City are included as Attachment 2.)

3. If dispensaries are allowed, does the City Council wish to place a limit on the number of dispensaries within the City?

B. *Delivery*

1. Does the City Council wish to allow deliveries of medical marijuana within the City of Merced?

C. *Cultivation*

1. Does the City Council wish to allow the cultivation of medical marijuana within the City by a primary caregiver or qualified patient?

2. If so, will the cultivation be allowed indoors, outdoors or both?

3. If cultivation is allowed, how many plants or square footage of cultivation will be allowed per lot or per dwelling unit? Options include, but are not limited to:

    i. A specific number of plants per legal lot or parcel.

    ii. A specific number of plants within a single private residence or upon the grounds of that residence.

    iii. A specified square footage for indoor and/or outdoor growing of medical marijuana.

2. *2008 Attorney General "Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use"*

As requested at the March 1, 2016 meeting, the 2008 Attorney General "Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use" (the "Guidelines") are attached as Attachment 3. The Guidelines generally provide a good overview of existing medical marijuana regulations, although the Guidelines do not include the provisions of MMRSA (the Medical Marijuana Regulation & Safety Act) that went into effect on January 1, 2016.

Several areas of the Guidelines, however, are incorrect based upon court cases that were decided after the 2008 Guidelines were released. In *City of Riverside v. Inland Empire Patients Health & Wellness Center, Inc.* (2013) 56 Cal. 4th 729, 762, the California Supreme Court held that cities had the right to regulate or ban medical marijuana dispensaries. In *Kirby v. County of Fresno* (2015) 242 Cal.App.4th 940, 965, an appellate court held that public entities retained their land use authority as it relates to cultivation of medical marijuana and are not required to allow cultivation within their corporate boundaries.

3. *Summary of Regulations of Selected Jurisdictions Relating to Personal and Commercial Growth of Medical Marijuana*

At its March 1, 2016 meeting, members of the City Council asked for additional information regarding small and large cities and counties and whether they allow personal and/or commercial growth of medical marijuana. Attachment 4 provides an overview of regulations for a variety of cities and counties in California.

4. *Summary of Problems That Other Cities Are Having With Dispensaries*

At the March 1, 2016 meeting, members of the City Council asked for a summary of problems that other cities are having with medical marijuana dispensaries.

San Francisco:

- 28 dispensaries currently.

- Current rules restrict pot businesses to only a small portion of the City, known as the “green zone”, which results in clustering.
- Current restrictions on dispensaries include locating only on ground floor of building.
- The Green Cross, a medical cannabis dispensary and delivery service. Most delivery services are unregulated. San Francisco is one of few cities to give official approval for them.
- SF law tasks the city’s Dept. of Public Health with regulating the medical marijuana industry (most cities give function to law enforcement or zoning agencies).
- No cap on licenses.

San Diego:

- Unregulated until 2014 ordinance.
- Ordinance allowing 4 dispensaries to open in each of San Diego’s 9 city districts for a total of 36 dispensaries.
- Must be more than 1,000 ft. from any public park, church, school, facility oriented toward children, or any previously permitted dispensary.
- Dispensaries compete for city approval and experience difficulty in locating place to operate.
    - This issue has created a boom in less regulated delivery services (San Diego zoning ordinance does not address delivery at all).
    - More than 100 delivery services in San Diego.
    - MMRSA will now require delivery services to list a physical place of business and local authorities can audit records and inventory.
- Illegal storefronts with no regard for the law continue to operate.
    - City Attorney’s office closed more than 260 storefronts from 2010-2014.

Los Angeles:

- Unregulated until 2013 with passage of Prop. D.
- Prop. D banned medical dispensaries except those operating legally prior to 2007 and already registered with the city.
- Per LA City Attorney, 134 dispensaries eligible to operate legally.
- UCLA survey found:

- 3 out of 4 dispensaries in the city are illegal.
- Highest concentrations of dispensaries in neighborhoods with lower-than-average household incomes compared to LA at large.
  - In 2007, there were 2 dispensaries in Wilmington and the neighborhoods of South LA, SE LA, San Pedro, Harbor Gateway. In 2015, nearly 40 operating dispensaries in those communities alone.
  - No dispensaries in Pacific Palisades and Beverly Crest, two of the three wealthiest neighborhoods in LA.
  - As of 2014, six of the 10 highest earning neighborhoods in LA had no dispensaries.

- Police indicate that dispensaries cause harm to community surrounding them:
  - Increased crime robberies.
  - Lack of citywide enforcement leads to more crime

Fresno County:

- Personal grows banned February 2014
  - Declaring it a public nuisance, which turned it into a local zoning issue
  - Fine is $1,000 per plant
  - Attorneys for growers fined by the county claim due process violations by issuing fines without giving growers time to pull plants themselves and states the growers could lose their homes or property because of exorbitant fines.
- Dispensaries banned.
- Despite drought conditions, per Sheriff Department data, county saw large increase in marijuana grows and in addition a large increase in violence such as robberies and murders associated with marijuana grows.
- Fresno Sheriff Margaret Mims states many patients believe they can grow up to 99 plants. This number comes from a list of federal drug trafficking penalties which requires federal government to sentence growers it catches cultivating 100 or more plants.

5. *General Information regarding THC and CBD*

Members of the City Council also requested general information regarding THC and CBD - two constituents normally found in marijuana.

According to Wikipedia, tetrahydrocannabinol (THC) is the principal psychoactive constituent (or

cannabinoid) of cannabis-i.e., a component of marijuana that can result in alterations in perception, mood, or consciousness or the "high" often associated with marijuana. (See <https://en.wikipedia.org/wiki/Tetrahydrocannabinol>.) First isolated in 1964 by Israeli scientists at the Weizmann Institute of Science, it can be an amber or gold colored glassy solid when cold, which becomes viscous and sticky if warmed.

A pharmaceutical formulation of THC (i.e., a synthetic version of THC) is available by prescription in the U.S. under the brand name Marinol and is used to combat nausea and vomiting caused by cancer chemotherapy. This drug is also used is also used to treat loss of appetite and weight loss in patients with HIV infection. (See <http://www.webmd.com/drugs/2/drug-9308/marinol-oral/details>.)

Cannabidiol (CBD) is one of at least 113 active cannabinoids identified in marijuana. (See <https://en.wikipedia.org/wiki/Cannabidiol>.) CBD is considered to have a wide scope of potential medical applications. CBD is the predominant cannabinoid in hemp-cannabis grown for fiber or growing in the wild.

CBD-rich strains were generally not available to cannabis users in California and other areas. (See <https://www.projectcbd.org>.) Generations of breeding marijuana for maximum THC and a strong "high" had reduced the CBD to trace amounts in most cannabis strains in Northern California. To meet the demands of medical cannabis patients, growers are currently developing more CBD-rich strains.

For data collection purposes, "CBD-rich" was initially defined as 4% or more by dry weight. More balanced strains with roughly equal amounts of CBD and THC were discovered, and then a handful of CBD-dominant strains (20:1 CBD:THC ratios or higher) were discovered, fostering a cottage industry of CBD-rich concentrates, oil extracts, and other CBD-rich products.

According to the FDA, examples of drugs in clinical testing using CBD and THC include Sativex for cancer pain and Epidiolex for childhood seizures. (See <http://www.fda.gov/downloads/aboutfda/centersoffices/officeofmedicalproductsandtobacco/cder/ucm438966.pdf>.)

6. *Availability of Labs to Test Medical Marijuana and How These Labs Are Regulated and Certified*

Under the Medical Marijuana Regulation & Safety Act (MMRSA), testing of cannabis will be mandated prior to delivery to dispensaries or other businesses (Business and Professions Code Sections 19341 to 19347). MMRSA requires medical cannabis to be lab tested for regulatory purposes on or before July 1, 2017 and sets standards for certification of testing laboratories to perform random sample testing of all medical marijuana.

For example, under the standard outlined in Business and Professions Code Section 19343:

"A licensed testing laboratory shall not handle, test, or analyze medical cannabis or medical cannabis products unless the licensed testing laboratory meets all of the following:

a) Is registered by the State Department of Public Health.

b) Is independent from all other persons and entities involved in the medical cannabis industry.

c) Follows the methodologies, ranges, and parameters that are contained in the scope of the accreditation for testing medical cannabis or medical cannabis products. The testing lab shall also comply with any other requirements specified by the State Department of Public Health.

d) Notifies the State Department of Public Health within one business day after the receipt of notice of any kind that its accreditation has been denied, suspended, or revoked.

e) Has established standard operating procedures that provide for adequate chain of custody controls for samples transferred to the licensed testing laboratory for testing."

There are existing marijuana/cannabis testing labs throughout California, including SC Labs in Santa Cruz, Steep Hill Labs in Oakland, Sequoia Analytical Labs in Sacramento, and Cannalysis Labs in Costa Mesa. Until MMRSA, there were no regulations or certification requirements in California and medical marijuana could be sold without any testing or standardized testing protocols and techniques. However, in the multibillion-dollar medical marijuana market, there has been awareness and recognition that testing can help legitimize the drug, protect patients, promote sales and improve breeding programs.

7. *Outline of Public Health Department Process For Obtaining A Medical Marijuana Identification Card*

A medical marijuana identification card can be obtained through the County Public Health Department (not through a physician's office or an evaluation center). The medical marijuana identification card is voluntary to patients and all that is required under SB 420 is a physician's letter recommending the use of medical marijuana. (See <https://www.cdph.ca.gov/programs/MMP/Pages/MMPFAQ.aspx>.) Merced County's website provides additional information regarding the process for obtaining a medical marijuana identification card. (See <http://www.co.merced.ca.us/index.aspx?NID=629>.)

Individuals wishing to obtain such a card need to complete the Medical Marijuana Program Application form and submit to County Health Department along with the following:

A. Government-issued photo ID
   1. If under 18/no photo ID, may provide certified copy of birth certificate
   2. If a primary caregiver is designated on application, primary caregiver must present photo ID at same time. Primary caregiver can use certified copy of birth certificate only if under 18 and serving as primary caregiver for their own child
B. Proof of county residency
C. Proof of legal status
D. Proof of Physician Recommendation: Written documentation from doctor recommending use of MJ is appropriate for one or more of the following serious medical conditions:
   1. AIDS
   2. Anorexia

3. Arthritis
4. Cachexia
5. Cancer
6. Chronic pain
7. Glaucoma
8. Migraine
9. Persistent muscle spasms including that associated with multiple sclerosis
10. Seizures, including those associated with epilepsy
11. Severe nausea
12. Any other chronic or persistent medical symptom that either substantially limits the ability of the person to conduct one or more major life activities as defined by the ADA of 1990 or, if not alleviated, such chronic or persistent medical symptoms may cause serious harm to your safety, or your physical or mental health

E. Administering agency is required to verify applicant's medical documentation with the medical provider.
F. Pay required application fees ($112.50/Medi-Cal Beneficiary or $225.00/Non Medi-Cal), which are nonrefundable.
G. If incomplete application and/or fail to provide all required information, application will be denied and may be restricted from reapplying for 6 months

8. *Actual Number of Medical Marijuana Users in Merced*

According to a State database, the total number of medical marijuana identification cards issued in Merced County from fiscal year 06/07 through October 2015 is 231; the total number of medical marijuana identification cards issued statewide through November 2015 is 84,111. There is no data available on actual users in Merced or Merced County given that obtaining a medical marijuana identification card is voluntary. (See <https://www.cdph.ca.gov/programs/MMP/Pages/MMPFAQ.aspx>.)

9. *Percentage of Chemotherapy Patients That Do Not Respond to Regular Anti-Nausea Drugs*

One of the members of the City Council asked about the percentage of chemotherapy patients that do not respond to regular anti-nausea drugs. According to the American Cancer Society, about 7 or 8 out of every 10 people treated for cancer have bouts of nausea and vomiting. (See <http://www.cancer.org/acs/groups/cid/documents/webcontent/003200-pdf.pdf>; Attachment 5.)

According to the American Cancer Society, no one drug can prevent or control chemo-related nausea and vomiting 100% of the time. This is because chemo drugs act on the body in different ways and each person responds to chemotherapy and the anti-nausea/vomiting drugs differently. To choose the best treatment plan, the doctor:

A. Considers how likely the chemo is to cause nausea and vomiting if no anti-nausea/vomiting treatment is given.
B. Selects anti-nausea/vomiting medicines based on how much the chemo drugs are known to affect the vomiting center in the brain.
C. Looks at past nausea and vomiting.

D. Reviews how well any anti-nausea medicines have worked before.
E. Looks at the side effects of the anti-nausea/vomiting medicines.
F. Uses the lowest effective dose of the anti-nausea/vomiting medicine before chemo or radiation therapy is given.
G. Uses medicines to try to prevent (not just control) the nausea and vomiting
H. Carefully watches response to the anti-nausea treatment.
I. Makes drug changes as needed to keep you from having nausea and vomiting.

Anti-nausea/vomiting medicines are administered based upon which chemo therapy is being received for the cancer. A patient may have to try a few different medicines to find the ones that work best for him/her, if at all. There may be other factors besides the chemo adding to the nausea and vomiting. Many of these drugs are very expensive and require pre-approval from health insurance before they will be covered.

10. *Conclusion*

Staff recommends that the City Council take public testimony regarding the medical marijuana issue as it relates to dispensaries, deliveries and cultivation within the City of Merced and either:

1. Provide direction to staff regarding specific modifications to the City's existing bans on dispensaries, deliveries and/or cultivation of medical marijuana within the City; or,

2. Schedule another study session on this matter regarding medical marijuana in general or specifically relating to dispensaries, deliveries and/or cultivation; or,

3. Take no further action regarding medical marijuana at this time.

IMPACT ON CITY RESOURCES

No appropriation of funds is needed at this time.

ATTACHMENTS

1. Draft Medical Marijuana Ordinance
2. Commercial Zoning Maps
3. 2008 Attorney General "Guidelines for the Security and Non-Diversion of Marijuana Grown for Medical Use"
4. Status of Selected Cities and Counties Regarding Personal and Commercial Medical Marijuana Cultivation
5. American Cancer Society Publication on Nausea and Vomiting

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MERCED, CALIFORNIA, ADDING CHAPTER 20.84, "MEDICAL MARIJUANA AND CULTIVATION" AND AMENDING SECTIONS _____ "CONDITIONAL USES," OF THE MERCED MUNICIPAL CODE REGARDING THE ZONING OF MEDICAL MARIJUANA DISPENSARIES AS CONDITIONAL USES

THE CITY COUNCIL OF THE CITY OF MERCED DOES ORDAIN AS FOLLOWS:

SECTION 1. AUTHORITY. This Ordinance is adopted pursuant to the authority granted by the California Constitution and State law, including but not limited to, Article XI, Section 7 of the California Constitution, the Compassionate Use Act of 1996 (California Health and Safety Code Section 11362.5), the Medical Marijuana Program (California Health and Safety Code § 11362.7 et seq.), and The Medical Marijuana Regulation and Safety Act (AB 266, AB 243, and SB 643; hereafter "MMRSA").

SECTION 2. ADOPTION OF CHAPTER 20.84. Chapter 20.84, Medical Marijuana and Cultivation," is hereby added to the Merced Municipal Code to read as follows:

"Chapter 20.84
MEDICAL MARIJUANA AND CULTIVATION

Section:

ATTACHMENT 1

20.84.010 Definitions.

'Cannabis' shall have the same meaning as set forth in Business and Professions Code Section 19300.5(f) as the same may be amended from time to time.

'Caregiver' or 'primary caregiver' shall have the same meaning as set forth in Health and Safety Code Section 11362.7 as the same may be amended from time to time.

'Commercial cannabis activity' shall have the same meaning as that set forth in Business and Professions Code Section 19300.5(k) as the same may be amended from time to time.

'Cultivation' shall have the same meaning as set forth in Business and Professions Code Section 19300.5(l) as the same may be amended from time to time.

'Delivery' or 'deliveries' shall have the same meaning as set forth in Business and Professions Code Section 19300.5(m) as the same may be amended from time to time.

'Dispensary' shall have the same meaning as set forth in Business and Professions Code Section 19300.5(n) as the same may be amended from time to time. 'Dispensary' shall not include the following uses:

(1) A clinic licensed pursuant to Chapter 1 of Division 2 of the California Health and Safety Code,

(2) A health care facility licensed pursuant to Chapter 2 of Division 2 of the California Health and Safety Code,

(3) A residential care facility for persons with chronic life-threatening illnesses licensed pursuant

to Chapter 3.01 of Division 2 of the California Health and Safety Code,

(4) A residential care facility for the elderly licensed pursuant to Chapter 3.2 of Division 2 of the California Health and Safety Code,

(5) A residential hospice or home health agency licensed pursuant to Chapter 8 of Division 2 of the California Health and Safety Code.

'Medical cannabis,' 'medical cannabis product,' or 'cannabis product' shall have the same meanings as set forth in Business & Professions Code § 19300.5(ag) as the same may be amended from time to time.

'Medical Marijuana Regulation and Safety Act' or 'MMRSA' shall mean the following bills signed into law on October 9, 2015 as the same may be amended from time to time: AB 243, AB 246, and SB 643.

'Qualifying patient' or 'Qualified patient' shall have the same meaning as set forth in Health and Safety Code Section 11362.7 as the same may be amended from time to time.

20.84.020 Regulations.

A. Commercial cannabis activities are expressly prohibited in all zones in the City of Merced; provided, however, dispensaries are allowed in the _____ district[*s*] as a conditional use or in Planned Developments which have the equivalent General Plan land use designations of [*this/these*] zone[*s*].

B. Licensed dispensaries are _____ [*authorized to make* OR *prohibited from making*] medical marijuana deliveries within the City of Merced.

C. Cultivation of cannabis for commercial purposes, is expressly prohibited in all zones and all specific plan areas in the City of Merced; provided, however, that _____ [*specific number*] or fewer marijuana plants, mature or immature, may be cultivated _____ [*indoors, outdoors or both*] on any lot if the owner, lessee or tenant of the lot is the primary caregiver or the qualified patient and the cannabis is intended for the qualified patient. Under no circumstances shall more than _____ [*specific number*] marijuana plants, mature or immature, be allowed on any lot _____ [*indoors, outdoors or both*] within the City.

OR

Alternatively, the City may allow cultivation of medical marijuana on a specific number of square feet of a lot and/or within a specific number of square feet within the interior portion of a building located on a lot.

[*If medical marijuana dispensaries are allowed within the City, specific provisions of the Zoning Code would be also amended depending on the zone or zones in which medical marijuana dispensaries are allowed as a conditional use.*]

SECTION ___. SEVERABILITY. If any section, subsection, subdivision, sentence, clause, phrase, or portion of this Ordinance, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have adopted this Ordinance, and each section, subsection, subdivision, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

SECTION ___. PUBLICATION. The City Clerk is directed to cause a summary of this Ordinance to be published in the official newspaper at least once within fifteen (15) days after its adoption showing the vote thereon.

The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of Merced on the ____ day of _____, 2016, and was passed and adopted at a regular meeting of said City Council held on the ____ day of _____, 2016, by the following called vote:

AYES: **Council Members:**

NOES: **Council Members:**

ABSTAIN: **Council Members:**

ABSENT: **Council Members:**

APPROVED:

_____
Mayor

ATTEST:
STEVE CARRIGAN, CITY CLERK

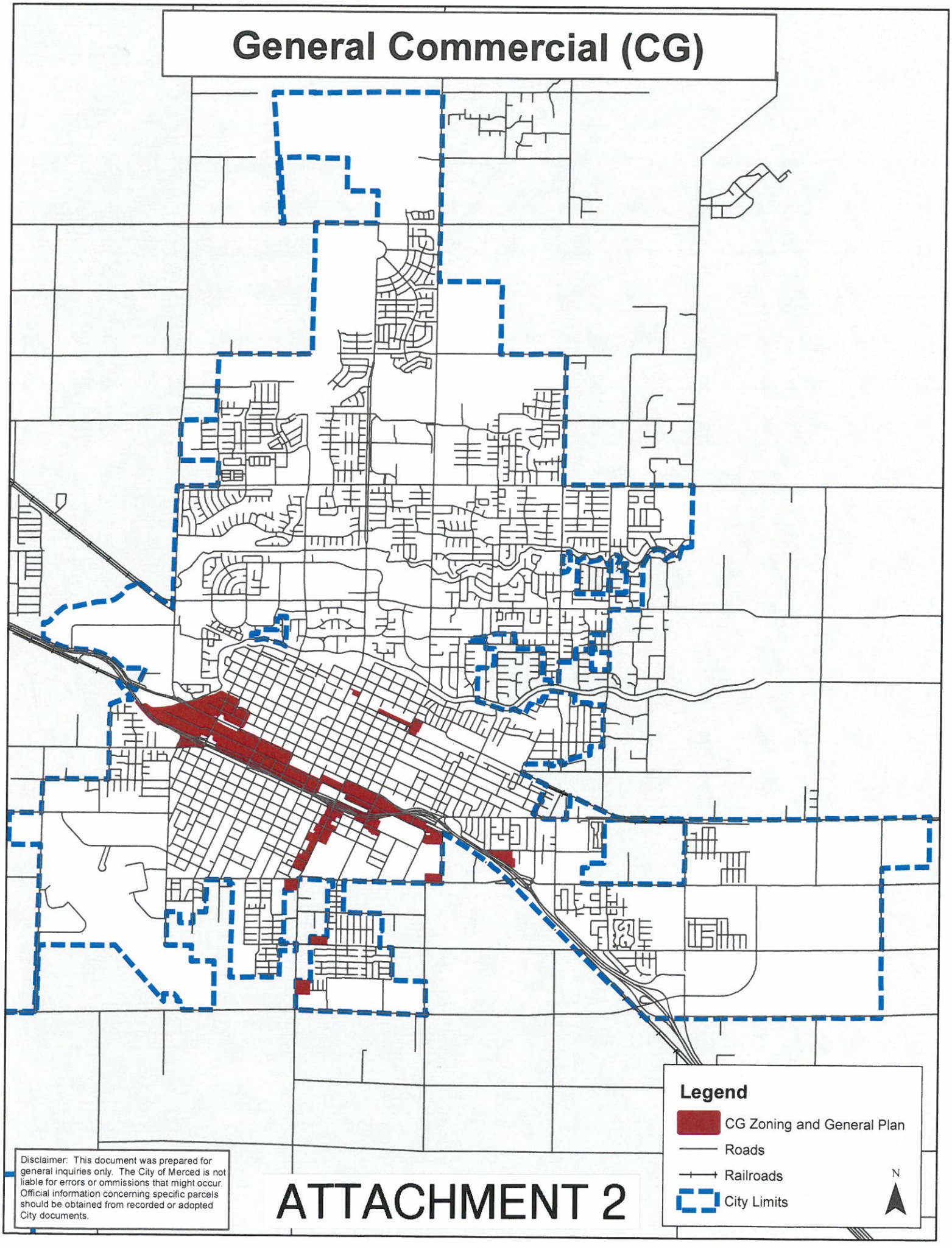
BY:_____
Assistant City Clerk

(SEAL)

APPROVED AS TO FORM

_____
City Attorney **Date**

General Commercial (CG)



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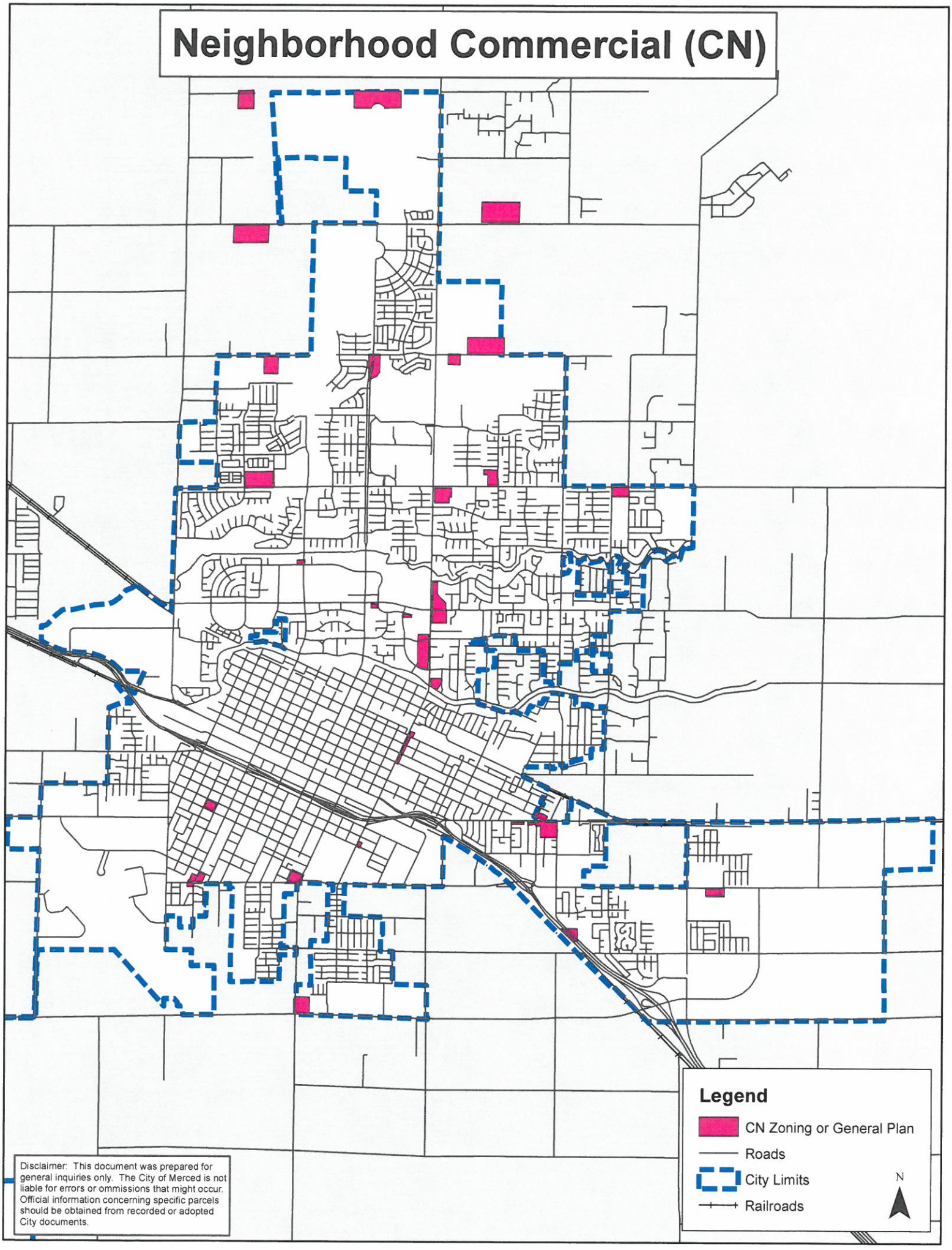
ATTACHMENT 2

Neighborhood Commercial (CN)



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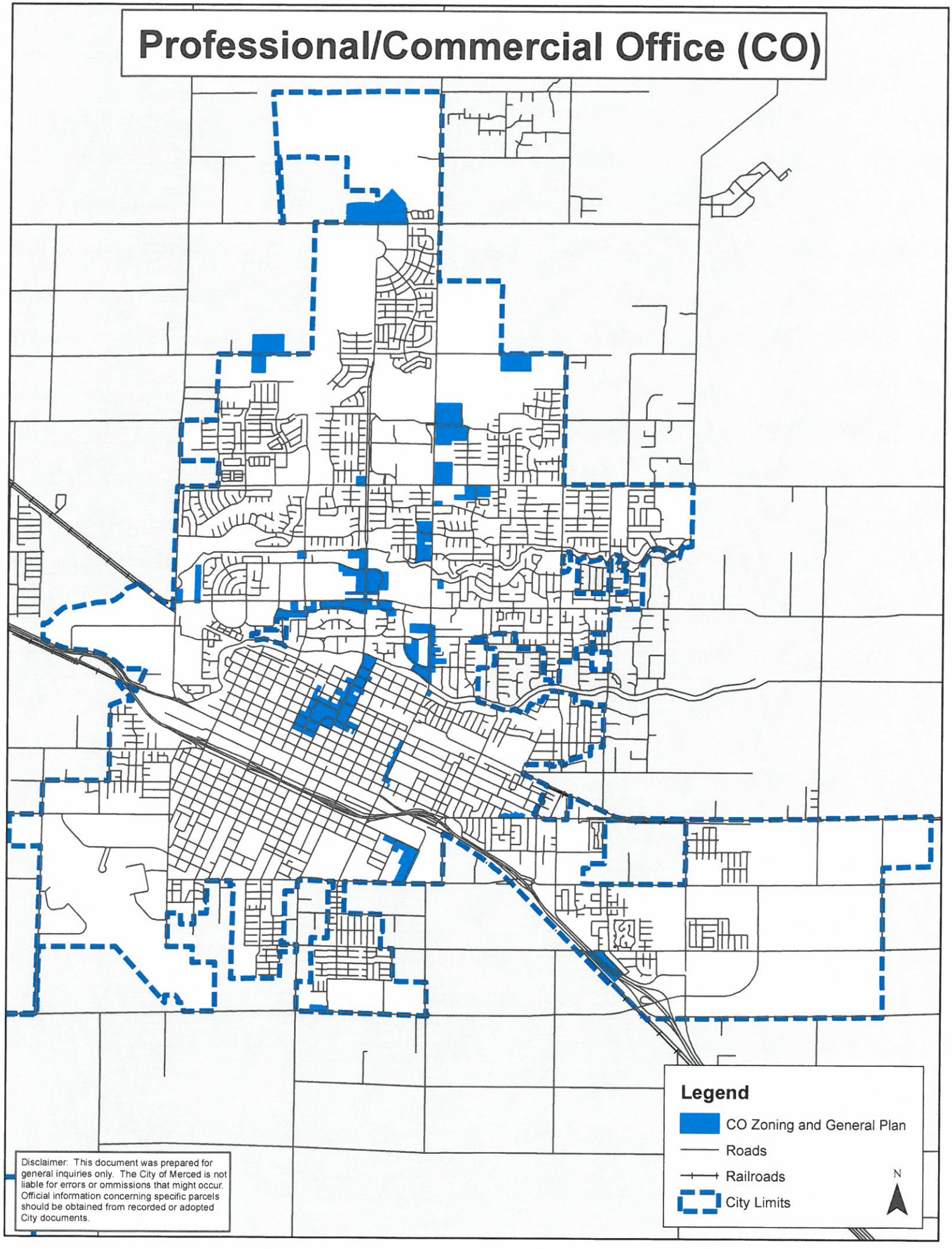
Professional/Commercial Office (CO)



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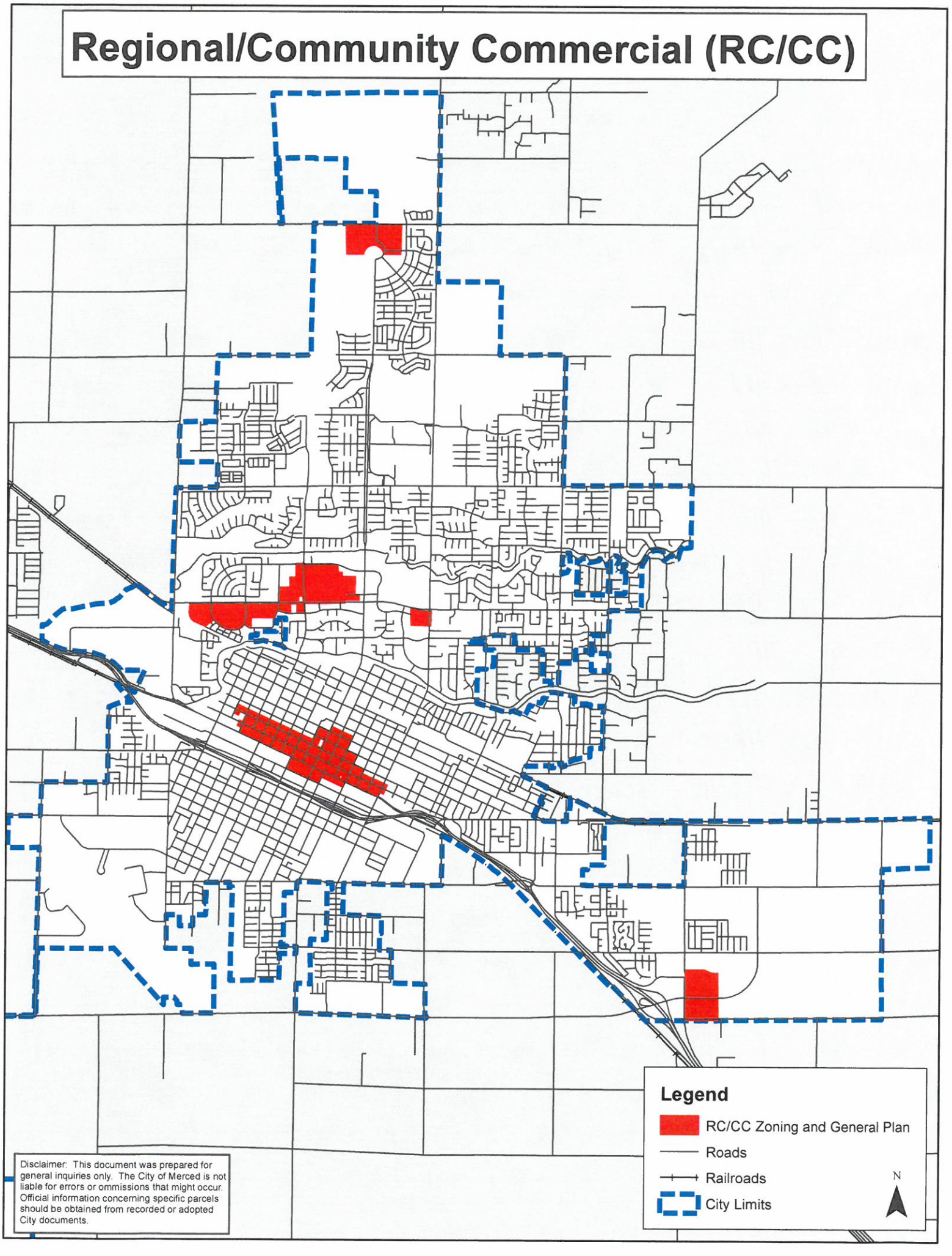
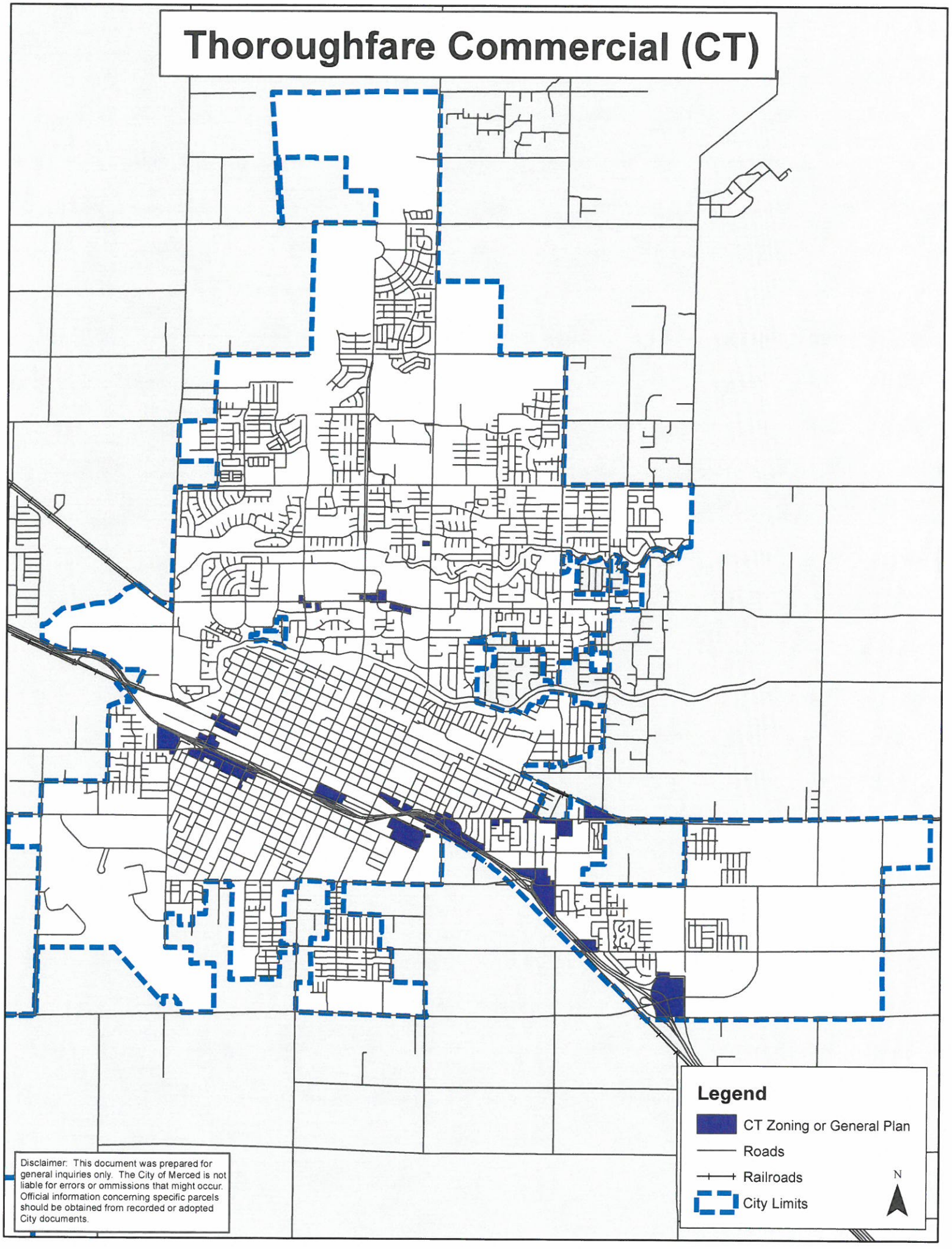
Regional/Community Commercial (RC/CC)



Thoroughfare Commercial (CT)



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EDMUND G. BROWN JR.
Attorney General

DEPARTMENT OF JUSTICE
State of California

GUIDELINES FOR THE SECURITY AND NON-DIVERSION OF MARIJUANA GROWN FOR MEDICAL USE

August 2008

In 1996, California voters approved an initiative that exempted certain patients and their primary caregivers from criminal liability under state law for the possession and cultivation of marijuana. In 2003, the Legislature enacted additional legislation relating to medical marijuana. One of those statutes requires the Attorney General to adopt "guidelines to ensure the security and nondiversion of marijuana grown for medical use." (Health & Saf. Code, § 11362.81(d).[1]) To fulfill this mandate, this Office is issuing the following guidelines to (1) ensure that marijuana grown for medical purposes remains secure and does not find its way to non-patients or illicit markets, (2) help law enforcement agencies perform their duties effectively and in accordance with California law, and (3) help patients and primary caregivers understand how they may cultivate, transport, possess, and use medical marijuana under California law.

I. SUMMARY OF APPLICABLE LAW

A. California Penal Provisions Relating to Marijuana.

The possession, sale, cultivation, or transportation of marijuana is ordinarily a crime under California law. (See, e.g., § 11357 [possession of marijuana is a misdemeanor]; § 11358 [cultivation of marijuana is a felony]; Veh. Code, § 23222 [possession of less than 1 oz. of marijuana while driving is a misdemeanor]; § 11359 [possession with intent to sell any amount of marijuana is a felony]; § 11360 [transporting, selling, or giving away marijuana in California is a felony; under 28.5 grams is a misdemeanor]; § 11361 [selling or distributing marijuana to minors, or using a minor to transport, sell, or give away marijuana, is a felony].)

B. Proposition 215 - The Compassionate Use Act of 1996.

On November 5, 1996, California voters passed Proposition 215, which decriminalized the cultivation and use of marijuana by seriously ill individuals upon a physician's recommendation. (§ 11362.5.) Proposition 215 was enacted to "ensure that seriously ill Californians have the right to obtain and use marijuana for medical purposes where that medical use is deemed appropriate and has been recommended by a physician who has determined that the person's health would benefit from the use of marijuana," and to "ensure that patients and their primary caregivers who obtain and use marijuana for

[1] Unless otherwise noted, all statutory references are to the Health & Safety Code.

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medical purposes upon the recommendation of a physician are not subject to criminal prosecution or sanction." (§ 11362.5(b)(1)(A)-(B).)

The Act further states that "Section 11357, relating to the possession of marijuana, and Section 11358, relating to the cultivation of marijuana, shall not apply to a patient, or to a patient's primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or verbal recommendation or approval of a physician." (§ 11362.5(d).) Courts have found an implied defense to the transportation of medical marijuana when the "quantity transported and the method, timing and distance of the transportation are reasonably related to the patient's current medical needs." (*People v. Trippet* (1997) 56 Cal.App.4th 1532, 1551.)

C. Senate Bill 420 - The Medical Marijuana Program Act.

On January 1, 2004, Senate Bill 420, the Medical Marijuana Program Act (MMP), became law. (§§ 11362.7-11362.83.) The MMP, among other things, requires the California Department of Public Health (DPH) to establish and maintain a program for the voluntary registration of qualified medical marijuana patients and their primary caregivers through a statewide identification card system. Medical marijuana identification cards are intended to help law enforcement officers identify and verify that cardholders are able to cultivate, possess, and transport certain amounts of marijuana without being subject to arrest under specific conditions. (§§ 11362.71(e), 11362.78.)

It is mandatory that all counties participate in the identification card program by (a) providing applications upon request to individuals seeking to join the identification card program; (b) processing completed applications; (c) maintaining certain records; (d) following state implementation protocols; and (e) issuing DPH identification cards to approved applicants and designated primary caregivers. (§ 11362.71(b).)

Participation by patients and primary caregivers in the identification card program is voluntary. However, because identification cards offer the holder protection from arrest, are issued only after verification of the cardholder's status as a qualified patient or primary caregiver, and are immediately verifiable online or via telephone, they represent one of the best ways to ensure the security and non-diversion of marijuana grown for medical use.

In addition to establishing the identification card program, the MMP also defines certain terms, sets possession guidelines for cardholders, and recognizes a qualified right to collective and cooperative cultivation of medical marijuana. (§§ 11362.7, 11362.77, 11362.775.)

D. Taxability of Medical Marijuana Transactions.

In February 2007, the California State Board of Equalization (BOE) issued a Special Notice confirming its policy of taxing medical marijuana transactions, as well as its requirement that businesses engaging in such transactions hold a Seller's Permit. (http://www.boe.ca.gov/news/pdf/medseller2007.pdf.) According to the Notice, having a Seller's Permit does not allow individuals to make unlawful sales, but instead merely provides a way to remit any sales and use taxes due. BOE further clarified its policy in a

June 2007 Special Notice that addressed several frequently asked questions concerning taxation of medical marijuana transactions. (http://www.boe.ca.gov/news/pdf/173.pdf.)

E. Medical Board of California.

The Medical Board of California licenses, investigates, and disciplines California physicians. (Bus. & Prof. Code, § 2000, et seq.) Although state law prohibits punishing a physician simply for recommending marijuana for treatment of a serious medical condition (§ 11362.5(c)), the Medical Board can and does take disciplinary action against physicians who fail to comply with accepted medical standards when recommending marijuana. In a May 13, 2004 press release, the Medical Board clarified that these accepted standards are the same ones that a reasonable and prudent physician would follow when recommending or approving any medication. They include the following:

1. Taking a history and conducting a good faith examination of the patient;
2. Developing a treatment plan with objectives;
3. Providing informed consent, including discussion of side effects;
4. Periodically reviewing the treatment's efficacy;
5. Consultations, as necessary; and
6. Keeping proper records supporting the decision to recommend the use of medical marijuana.

(http://www.mbc.ca.gov/board/media/releases_2004_05-13_marijuana.html.)

Complaints about physicians should be addressed to the Medical Board (1-800-633-2322 or www.mbc.ca.gov), which investigates and prosecutes alleged licensing violations in conjunction with the Attorney General's Office.

F. The Federal Controlled Substances Act.

Adopted in 1970, the Controlled Substances Act (CSA) established a federal regulatory system designed to combat recreational drug abuse by making it unlawful to manufacture, distribute, dispense, or possess any controlled substance. (21 U.S.C. § 801, et seq.; *Gonzales v. Oregon* (2006) 546 U.S. 243, 271-273.) The CSA reflects the federal government's view that marijuana is a drug with "no currently accepted medical use." (21 U.S.C. § 812(b)(1).) Accordingly, the manufacture, distribution, or possession of marijuana is a federal criminal offense. (*Id.* at §§ 841(a)(1), 844(a).)

The incongruity between federal and state law has given rise to understandable confusion, but no legal conflict exists merely because state law and federal law treat marijuana differently. Indeed, California's medical marijuana laws have been challenged unsuccessfully in court on the ground that they are preempted by the CSA. (*County of San Diego v. San Diego NORML* (July 31, 2008) --- Cal.Rptr.3d ---, 2008 WL 2930117.) Congress has provided that states are free to regulate in the area of controlled substances, including marijuana, provided that state law does not positively conflict with the CSA. (21 U.S.C. § 903.) Neither Proposition 215, nor the MMP, conflict with the CSA because, in adopting these laws, California did not "legalize" medical marijuana, but instead exercised the state's reserved powers to not punish certain marijuana offenses under state law when a physician has recommended its use to treat a serious medical condition. (See *City of Garden Grove v. Superior Court* (*Kha*) (2007) 157 Cal.App.4th 355, 371-373, 381-382.)

In light of California's decision to remove the use and cultivation of physician-recommended marijuana from the scope of the state's drug laws, this Office recommends that state and local law enforcement officers not arrest individuals or seize marijuana under federal law when the officer determines from the facts available that the cultivation, possession, or transportation is permitted under California's medical marijuana laws.

II. DEFINITIONS

A. **Physician's Recommendation:** Physicians may not prescribe marijuana because the federal Food and Drug Administration regulates prescription drugs and, under the CSA, marijuana is a Schedule I drug, meaning that it has no recognized medical use. Physicians may, however, lawfully issue a verbal or written recommendation under California law indicating that marijuana would be a beneficial treatment for a serious medical condition. (§ 11362.5(d); *Conant v. Walters* (9th Cir. 2002) 309 F.3d 629, 632.)

B. **Primary Caregiver:** A primary caregiver is a person who is designated by a qualified patient and "has consistently assumed responsibility for the housing, health, or safety" of the patient. (§ 11362.5(e).) California courts have emphasized the consistency element of the patient-caregiver relationship. Although a "primary caregiver who consistently grows and supplies . . . medicinal marijuana for a section 11362.5 patient is serving a health need of the patient," someone who merely maintains a source of marijuana does not automatically become the party "who has consistently assumed responsibility for the housing, health, or safety" of that purchaser. (*People ex rel. Lungren v. Peron* (1997) 59 Cal.App.4th 1383, 1390, 1400.) A person may serve as primary caregiver to "more than one" patient, provided that the patients and caregiver all reside in the same city or county. (§ 11362.7(d)(2).) Primary caregivers also may receive certain compensation for their services. (§ 11362.765(c) ["A primary caregiver who receives compensation for actual expenses, including reasonable compensation incurred for services provided . . . to enable [a patient] to use marijuana under this article, or for payment for out-of-pocket expenses incurred in providing those services, or both, . . . shall not, on the sole basis of that fact, be subject to prosecution" for possessing or transporting marijuana].)

C. **Qualified Patient:** A qualified patient is a person whose physician has recommended the use of marijuana to treat a serious illness, including cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine, or any other illness for which marijuana provides relief. (§ 11362.5(b)(1)(A).)

D. **Recommending Physician:** A recommending physician is a person who (1) possesses a license in good standing to practice medicine in California; (2) has taken responsibility for some aspect of the medical care, treatment, diagnosis, counseling, or referral of a patient; and (3) has complied with accepted medical standards (as described by the Medical Board of California in its May 13, 2004 press release) that a reasonable and prudent physician would follow when recommending or approving medical marijuana for the treatment of his or her patient.

III. GUIDELINES REGARDING INDIVIDUAL QUALIFIED PATIENTS AND PRIMARY CAREGIVERS

A. State Law Compliance Guidelines.

1. **Physician Recommendation**: Patients must have a written or verbal recommendation for medical marijuana from a licensed physician. (§ 11362.5(d).)

2. **State of California Medical Marijuana Identification Card**: Under the MMP, qualified patients and their primary caregivers may voluntarily apply for a card issued by DPH identifying them as a person who is authorized to use, possess, or transport marijuana grown for medical purposes. To help law enforcement officers verify the cardholder's identity, each card bears a unique identification number, and a verification database is available online (www.calmmp.ca.gov). In addition, the cards contain the name of the county health department that approved the application, a 24-hour verification telephone number, and an expiration date. (§§ 11362.71(a); 11362.735(a)(3)-(4); 11362.745.)

3. Proof of Qualified Patient Status: Although verbal recommendations are technically permitted under Proposition 215, patients should obtain and carry written proof of their physician recommendations to help them avoid arrest. A state identification card is the best form of proof, because it is easily verifiable and provides immunity from arrest if certain conditions are met (see section III.B.4, below). The next best forms of proof are a city- or county-issued patient identification card, or a written recommendation from a physician.

4. **Possession Guidelines**:

a) **MMP**:[2] Qualified patients and primary caregivers who possess a state-issued identification card may possess 8 oz. of dried marijuana, and may maintain no more than 6 mature or 12 immature plants per qualified patient. (§ 11362.77(a).) But, if "a qualified patient or primary caregiver has a doctor's recommendation that this quantity does not meet the qualified patient's medical needs, the qualified patient or primary caregiver may possess an amount of marijuana consistent with the patient's needs." (§ 11362.77(b).) Only the dried mature processed flowers or buds of the female cannabis plant should be considered when determining allowable quantities of medical marijuana for purposes of the MMP. (§ 11362.77(d).)

b) **Local Possession Guidelines:** Counties and cities may adopt regulations that allow qualified patients or primary caregivers to possess

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[2] On May 22, 2008, California's Second District Court of Appeal severed Health & Safety Code § 11362.77 from the MMP on the ground that the statute's possession guidelines were an unconstitutional amendment of Proposition 215, which does not quantify the marijuana a patient may possess. (See *People v. Kelly* (2008) 163 Cal.App.4th 124, 77 Cal.Rptr.3d 390.) The Third District Court of Appeal recently reached a similar conclusion in *People v. Phomphakdy* (July 31, 2008) --- Cal.Rptr.3d ---, 2008 WL 2931369. The California Supreme Court has granted review in *Kelly* and the Attorney General intends to seek review in *Phomphakdy*.

medical marijuana in amounts that exceed the MMP's possession guidelines. (§ 11362.77(c).)

c) **Proposition 215**: Qualified patients claiming protection under Proposition 215 may possess an amount of marijuana that is "reasonably related to [their] current medical needs." (*People v. Trippet* (1997) 56 Cal.App.4th 1532, 1549.)

B. **Enforcement Guidelines**.

1. **Location of Use**: Medical marijuana may not be smoked (a) where smoking is prohibited by law, (b) at or within 1000 feet of a school, recreation center, or youth center (unless the medical use occurs within a residence), (c) on a school bus, or (d) in a moving motor vehicle or boat. (§ 11362.79.)

2. **Use of Medical Marijuana in the Workplace or at Correctional Facilities:** The medical use of marijuana need not be accommodated in the workplace, during work hours, or at any jail, correctional facility, or other penal institution. (§ 11362.785(a); *Ross v. RagingWire Telecomms., Inc.* (2008) 42 Cal.4th 920, 933 [under the Fair Employment and Housing Act, an employer may terminate an employee who tests positive for marijuana use].)

3. **Criminal Defendants, Probationers, and Parolees:** Criminal defendants and probationers may request court approval to use medical marijuana while they are released on bail or probation. The court's decision and reasoning must be stated on the record and in the minutes of the court. Likewise, parolees who are eligible to use medical marijuana may request that they be allowed to continue such use during the period of parole. The written conditions of parole must reflect whether the request was granted or denied. (§ 11362.795.)

4. **State of California Medical Marijuana Identification Cardholders**: When a person invokes the protections of Proposition 215 or the MMP and he or she possesses a state medical marijuana identification card, officers should:

a) Review the identification card and verify its validity either by calling the telephone number printed on the card, or by accessing DPH's card verification website (http://www.calmmp.ca.gov); and

b) If the card is valid and not being used fraudulently, there are no other indicia of illegal activity (weapons, illicit drugs, or excessive amounts of cash), and the person is within the state or local possession guidelines, the individual should be released and the marijuana should not be seized. Under the MMP, "no person or designated primary caregiver in possession of a valid state medical marijuana identification card shall be subject to arrest for possession, transportation, delivery, or cultivation of medical marijuana." (§ 11362.71(e).) Further, a "state or local law enforcement agency or officer shall not refuse to accept an identification card issued by the department unless the state or local law enforcement agency or officer

has reasonable cause to believe that the information contained in the card is false or fraudulent, or the card is being used fraudulently." (§ 11362.78.)

5. **Non-Cardholders:** When a person claims protection under Proposition 215 or the MMP and only has a locally-issued (i.e., non-state) patient identification card, or a written (or verbal) recommendation from a licensed physician, officers should use their sound professional judgment to assess the validity of the person's medical-use claim:

a) Officers need not abandon their search or investigation. The standard search and seizure rules apply to the enforcement of marijuana-related violations. Reasonable suspicion is required for detention, while probable cause is required for search, seizure, and arrest.

b) Officers should review any written documentation for validity. It may contain the physician's name, telephone number, address, and license number.

c) If the officer reasonably believes that the medical-use claim is valid based upon the totality of the circumstances (including the quantity of marijuana, packaging for sale, the presence of weapons, illicit drugs, or large amounts of cash), and the person is within the state or local possession guidelines or has an amount consistent with their current medical needs, the person should be released and the marijuana should not be seized.

d) Alternatively, if the officer has probable cause to doubt the validity of a person's medical marijuana claim based upon the facts and circumstances, the person may be arrested and the marijuana may be seized. It will then be up to the person to establish his or her medical marijuana defense in court.

e) Officers are not obligated to accept a person's claim of having a verbal physician's recommendation that cannot be readily verified with the physician at the time of detention.

6. **Exceeding Possession Guidelines**: If a person has what appears to be valid medical marijuana documentation, but exceeds the applicable possession guidelines identified above, all marijuana may be seized.

7. **Return of Seized Medical Marijuana:** If a person whose marijuana is seized by law enforcement successfully establishes a medical marijuana defense in court, or the case is not prosecuted, he or she may file a motion for return of the marijuana. If a court grants the motion and orders the return of marijuana seized incident to an arrest, the individual or entity subject to the order must return the property. State law enforcement officers who handle controlled substances in the course of their official duties are immune from liability under the CSA. (21 U.S.C. § 885(d).) Once the marijuana is returned, federal authorities are free to exercise jurisdiction over it. (21 U.S.C. §§ 812(c)(10), 844(a); *City of Garden Grove v. Superior Court* (*Kha*) (2007) 157 Cal.App.4th 355, 369, 386, 391.)

IV. GUIDELINES REGARDING COLLECTIVES AND COOPERATIVES

Under California law, medical marijuana patients and primary caregivers may "associate within the State of California in order collectively or cooperatively to cultivate marijuana for medical purposes." (§ 11362.775.) The following guidelines are meant to apply to qualified patients and primary caregivers who come together to collectively or cooperatively cultivate physician-recommended marijuana.

A. Business Forms: Any group that is collectively or cooperatively cultivating and distributing marijuana for medical purposes should be organized and operated in a manner that ensures the security of the crop and safeguards against diversion for non-medical purposes. The following are guidelines to help cooperatives and collectives operate within the law, and to help law enforcement determine whether they are doing so.

1. **Statutory Cooperatives:** A cooperative must file articles of incorporation with the state and conduct its business for the mutual benefit of its members. (Corp. Code, § 12201, 12300.) No business may call itself a "cooperative" (or "co-op") unless it is properly organized and registered as such a corporation under the Corporations or Food and Agricultural Code. (*Id.* at § 12311(b).) Cooperative corporations are "democratically controlled and are not organized to make a profit for themselves, as such, or for their members, as such, but primarily for their members as patrons." (*Id.* at § 12201.) The earnings and savings of the business must be used for the general welfare of its members or equitably distributed to members in the form of cash, property, credits, or services. (*Ibid.*) Cooperatives must follow strict rules on organization, articles, elections, and distribution of earnings, and must report individual transactions from individual members each year. (See *id.* at § 12200, et seq.) Agricultural cooperatives are likewise nonprofit corporate entities "since they are not organized to make profit for themselves, as such, or for their members, as such, but only for their members as producers." (Food & Agric. Code, § 54033.) Agricultural cooperatives share many characteristics with consumer cooperatives. (See, e.g., *id.* at § 54002, et seq.) Cooperatives should not purchase marijuana from, or sell to, non-members; instead, they should only provide a means for facilitating or coordinating transactions between members.

2. **Collectives:** California law does not define collectives, but the dictionary defines them as "a business, farm, etc., jointly owned and operated by the members of a group." (*Random House Unabridged Dictionary*; Random House, Inc. © 2006.) Applying this definition, a collective should be an organization that merely facilitates the collaborative efforts of patient and caregiver members – including the allocation of costs and revenues. As such, a collective is not a statutory entity, but as a practical matter it might have to organize as some form of business to carry out its activities. The collective should not purchase marijuana from, or sell to, non-members; instead, it should only provide a means for facilitating or coordinating transactions between members.

B. **Guidelines for the Lawful Operation of a Cooperative or Collective:** Collectives and cooperatives should be organized with sufficient structure to ensure security, non-diversion of marijuana to illicit markets, and compliance with all state and local laws. The following are some suggested guidelines and practices for operating collective growing operations to help ensure lawful operation.

1. **Non-Profit Operation**: Nothing in Proposition 215 or the MMP authorizes collectives, cooperatives, or individuals to profit from the sale or distribution of marijuana. (See, e.g., § 11362.765(a) ["nothing in this section shall authorize . . . any individual or group to cultivate or distribute marijuana for profit"].

2. **Business Licenses, Sales Tax, and Seller's Permits**: The State Board of Equalization has determined that medical marijuana transactions are subject to sales tax, regardless of whether the individual or group makes a profit, and those engaging in transactions involving medical marijuana must obtain a Seller's Permit. Some cities and counties also require dispensing collectives and cooperatives to obtain business licenses.

3. **Membership Application and Verification**: When a patient or primary caregiver wishes to join a collective or cooperative, the group can help prevent the diversion of marijuana for non-medical use by having potential members complete a written membership application. The following application guidelines should be followed to help ensure that marijuana grown for medical use is not diverted to illicit markets:

a) Verify the individual's status as a qualified patient or primary caregiver. Unless he or she has a valid state medical marijuana identification card, this should involve personal contact with the recommending physician (or his or her agent), verification of the physician's identity, as well as his or her state licensing status. Verification of primary caregiver status should include contact with the qualified patient, as well as validation of the patient's recommendation. Copies should be made of the physician's recommendation or identification card, if any;

b) Have the individual agree not to distribute marijuana to non-members;

c) Have the individual agree not to use the marijuana for other than medical purposes;

d) Maintain membership records on-site or have them reasonably available;

e) Track when members' medical marijuana recommendation and/or identification cards expire; and

f) Enforce conditions of membership by excluding members whose identification card or physician recommendation are invalid or have expired, or who are caught diverting marijuana for non-medical use.

4. **Collectives Should Acquire, Possess, and Distribute Only Lawfully Cultivated Marijuana**: Collectives and cooperatives should acquire marijuana only from their constituent members, because only marijuana grown by a qualified patient or his or her primary caregiver may lawfully be transported by, or distributed to, other members of a collective or cooperative. (§§ 11362.765, 11362.775.) The collective or cooperative may then allocate it to other members of the group. Nothing allows marijuana to be purchased from outside the collective or cooperative for distribution to its members. Instead, the cycle should be a closed-circuit of marijuana cultivation and consumption with no purchases or sales to or from non-members. To help prevent diversion of medical marijuana to non-medical markets, collectives and cooperatives should document each member's contribution of labor, resources, or money to the enterprise. They also should track and record the source of their marijuana.

5. **Distribution and Sales to Non-Members are Prohibited**: State law allows primary caregivers to be reimbursed for certain services (including marijuana cultivation), but nothing allows individuals or groups to sell or distribute marijuana to non-members. Accordingly, a collective or cooperative may not distribute medical marijuana to any person who is not a member in good standing of the organization. A dispensing collective or cooperative may credit its members for marijuana they provide to the collective, which it may then allocate to other members. (§ 11362.765(c).) Members also may reimburse the collective or cooperative for marijuana that has been allocated to them. Any monetary reimbursement that members provide to the collective or cooperative should only be an amount necessary to cover overhead costs and operating expenses.

6. **Permissible Reimbursements and Allocations:** Marijuana grown at a collective or cooperative for medical purposes may be:

a) Provided free to qualified patients and primary caregivers who are members of the collective or cooperative;
b) Provided in exchange for services rendered to the entity;
c) Allocated based on fees that are reasonably calculated to cover overhead costs and operating expenses; or
d) Any combination of the above.

7. **Possession and Cultivation Guidelines**: If a person is acting as primary caregiver to more than one patient under section 11362.7(d)(2), he or she may aggregate the possession and cultivation limits for each patient. For example, applying the MMP's basic possession guidelines, if a caregiver is responsible for three patients, he or she may possess up to 24 oz. of marijuana (8 oz. per patient) and may grow 18 mature or 36 immature plants. Similarly, collectives and cooperatives may cultivate and transport marijuana in aggregate amounts tied to its membership numbers. Any patient or primary caregiver exceeding individual possession guidelines should have supporting records readily available when:

a) Operating a location for cultivation;
b) Transporting the group's medical marijuana; and
c) Operating a location for distribution to members of the collective or cooperative.

8. **Security**: Collectives and cooperatives should provide adequate security to ensure that patients are safe and that the surrounding homes or businesses are not negatively impacted by nuisance activity such as loitering or crime. Further, to maintain security, prevent fraud, and deter robberies, collectives and cooperatives should keep accurate records and follow accepted cash handling practices, including regular bank runs and cash drops, and maintain a general ledger of cash transactions.

C. **Enforcement Guidelines**: Depending upon the facts and circumstances, deviations from the guidelines outlined above, or other indicia that marijuana is not for medical use, may give rise to probable cause for arrest and seizure. The following are additional guidelines to help identify medical marijuana collectives and cooperatives that are operating outside of state law.

1. **Storefront Dispensaries:** Although medical marijuana "dispensaries" have been operating in California for years, dispensaries, as such, are not recognized under the law. As noted above, the only recognized group entities are cooperatives and collectives. (§ 11362.775.) It is the opinion of this Office that a properly organized and operated collective or cooperative that dispenses medical marijuana through a storefront may be lawful under California law, but that dispensaries that do not substantially comply with the guidelines set forth in sections IV(A) and (B), above, are likely operating outside the protections of Proposition 215 and the MMP, and that the individuals operating such entities may be subject to arrest and criminal prosecution under California law. For example, dispensaries that merely require patients to complete a form summarily designating the business owner as their primary caregiver – and then offering marijuana in exchange for cash "donations" – are likely unlawful. (*Peron*, *supra*, 59 Cal.App.4th at p. 1400 [cannabis club owner was not the primary caregiver to thousands of patients where he did not consistently assume responsibility for their housing, health, or safety].)

2. **Indicia of Unlawful Operation:** When investigating collectives or cooperatives, law enforcement officers should be alert for signs of mass production or illegal sales, including (a) excessive amounts of marijuana, (b) excessive amounts of cash, (c) failure to follow local and state laws applicable to similar businesses, such as maintenance of any required licenses and payment of any required taxes, including sales taxes, (d) weapons, (e) illicit drugs, (f) purchases from, or sales or distribution to, non-members, or (g) distribution outside of California.

County/City	*Commercial Grow*	*Personal Grow*	*Other Information*
Alameda County	No	Yes	Per State Law[1]
Calaveras County	No	Yes	Per State Law
Humboldt County	Yes	Yes Up to 3 lbs. Indoor: limited to 50 sq ft per parcel 1200 watts Outdoors: limited to 100 sq. ft. on parcels 1 acre or less; up to 200 sq. ft. 1 acre to 5 acres	Code § 581-1(d) finds that a 100 sq. ft canopy of mature female cannabis plants typically will yield 3 lbs. of dried processed marijuana per year, outdoor, regardless of number of plants
Placer County	No	Yes	Per State Law
Adelanto	Yes, 25 commercial medical marijuana cultivation permits issued on December 29, 2015.	Yes	Commercial cultivation is conditionally permitted within the Manufacturing/Industrial (MI) zone designation. Not allowed within 2,500 feet of a school, public playground or park, child care or day care facility, youth center, or church.
Berkeley	Yes	Yes	Visible outdoor gardens limited to 10 plants

[1] "[N]o more than six mature or 12 immature marijuana plants per qualified patient." (Health and Safety Code Section 11362.77, subd. (a).) However, per *Kirby v. County of Fresno* (2015) 242 Cal.App.4th 940, 965, public entities retain their land use authority as it relates to cultivation of medical marijuana and are not required to allow cultivation within their corporate boundaries.

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Chico	No	Yes	Outdoors: 50 sq. ft. per parcel, regardless of number of patients. Plants must be enclosed, screened & 5 ft. from property line Indoors: under 50 sq. ft. and 1200 watts & only with permit stating outdoor is not possible and building owner approves
Chowchilla	No	Yes	In an inspected secure enclosed structure with solid walls and roof & not encompassing living space. 120 sq ft per parcel. Only with property owner permission.
Clovis	No	Yes	Per State Law
Coalinga	Yes	Yes	Per State Law
Fowler	No	Yes	Per State Law
Folsom	No	No	
Fresno County	No	No	
Fresno City	No	No	
Lemoore	No	No	
Lodi	No	Yes	No outdoor cultivation Indoor limited to residence or garage of qualified patients or caregivers

Los Angeles		Yes	Allows 3-patient collective grows by patients or designated primary caregivers. No plant limits stated; using the state guidelines. Thus 18 mature plants for a 3-patient garden permitted
Madera County	No	Yes	Per State Law
Madera City	No	No	
Modesto	No	No	
Oakland	Yes	Yes Up to 3 lbs per patient	Indoors: 72 plants in max 32 sq. ft. grow area Outdoors: 20 plants no area limit Collective gardens limited to 3 patients Dispensaries serving 4 or more patients allowed max 6 mature and 12 immature plants and ½ lb. per patient (Oakland MC 5.81.101)
Reedley	No	Yes	Per State Law
Turlock	No	No	
San Francisco	Yes	Yes	Patients allowed up to 24 plants or 25 sq. ft. of canopy; dispensary gardens capped at 99 plants in 100 sq. ft. Possession limit is 8 oz dried cannabis per patient

Sacramento (City)	Yes	Yes	Outdoor cultivation banned but alternative structures acceptable if compliant (secure greenhouse system). 400 sq ft allowance for personal cultivation; 3800 watts artificial light
Sacramento County	No	Yes	9 plants indoors
Stanislaus County	No	No	

American Cancer Society®

Nausea and Vomiting

What is nausea and vomiting?

Nausea is an unpleasant feeling in the back of your throat and stomach that may lead to vomiting. Some other ways people describe nausea are *sick to my stomach*, *queasy*, or *upset stomach*. Other symptoms that may happen along with nausea are increased saliva (spit), dizziness, light-headedness, trouble swallowing, skin temperature changes, and a fast heart rate.

People often refer to vomiting as "throwing up." When you vomit, your stomach muscles contract (squeeze) and push the contents of your stomach out through your mouth. You might or might not feel nauseated.

Sometimes people retch. This is when you try to vomit without bringing anything up from your stomach. Other words used to describe retching are *gagging* or *dry heaves*.

Nausea and vomiting often happen at the same time, but they can be 2 different problems.

What causes nausea and vomiting in people with cancer?

The information in this document will focus on the nausea and vomiting caused by chemo or radiation therapy. Ask your health care team about what can be done to prevent or control these side effects.

Nausea and/or vomiting in the person with cancer can be caused by many different things, such as:

- Chemotherapy (also called *chemo*)
- Radiation therapy
- The cancer itself, especially if it's in or affecting the brain
- Certain other (non-chemo) medicines
- Bowel slowdown (*paresis*) or blockage (*obstruction*) or even constipation
- Inner ear problems

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- An imbalance of minerals and salts (*electrolytes*) in the blood
- Infections
- Anxiety
- The expectation of vomiting due to past vomiting in the same setting (this is called *anticipatory* vomiting)
- Other diseases or illnesses

How do nausea and vomiting happen?

Doctors think that vomiting is most likely controlled by the part of the brain called the *vomiting center*. Less is known about how nausea occurs. When you are given chemo, 2 things happen:

- A certain area of the brain is triggered
- Certain areas of the esophagus (the tube that connects the mouth to the stomach), stomach, small intestine, and large intestine are triggered

These triggers activate a reflex pathway that leads to nausea and vomiting. Drugs can be used to block different parts of this pathway to control and prevent nausea and vomiting.

Are nausea and vomiting common in people with cancer?

About 7 or 8 out of every 10 people treated for cancer have bouts of nausea and vomiting. But many medicines control and even prevent nausea and vomiting.

Drugs used to control these side effects are called *anti-nausea/vomiting drugs*. You may also hear them called *anti-emetics*. Every person with cancer who is getting treatments that cause nausea or vomiting can, and should, get medicines to keep this from happening. You don't have to suffer.

What health problems can nausea and vomiting cause?

Nausea and vomiting are 2 of the most dreaded, unpleasant side effects of cancer treatment, but they only rarely become life-threatening.

Repeated vomiting can lead to *dehydration*, which is a lack of fluids and minerals your body needs. Dehydration can make you not want to eat or drink anything, and if it continues, it can become a serious problem very quickly. Be sure to let your cancer team know right away if any of these happen:

- You can't keep fluids down
- You can't take the medicines you need
- You're vomiting for 24 hours or longer

Vomiting can also cause tiredness (fatigue), trouble concentrating, slow wound healing, weight loss, and loss of appetite. It can interfere with your ability to take care of yourself and may lead to changes in your treatment plan.

What do I need to know about nausea and vomiting?

Ask your doctor or a member of your health care team these questions:

- Is my cancer treatment likely to cause nausea and vomiting?
- Can my nausea and vomiting be prevented or controlled?
- How will you decide which anti-nausea/vomiting treatments I should use?
- Do the anti-nausea/vomiting treatments you want me to use have side effects?
- When and how often should I take each medicine?
- What will we do if the treatment doesn't control my nausea and vomiting?

Ask your doctor when you should call. For example, many doctors want you to call them if you are vomiting or if you can't keep down fluids or medicines. Some doctors may ask that you weigh yourself each day to quickly spot rapid weight loss from dehydration. Find out if there are other situations where you may need your doctor's help right away. And be sure you know how to reach your cancer team on holidays, weekends, or at night.

Chemotherapy-related nausea and vomiting

How likely you are to have nausea and vomiting while getting chemotherapy (chemo) depends on many different things. Some of these are:

- The types of chemo drugs used
- The dose of the drugs (high doses of chemo are more likely to cause nausea and vomiting)
- When and how often the drug is given; for example, if doses of a chemo drug that causes nausea and vomiting are given close together, there's less time for the person to recover from the effects of the last dose before the next treatment is given
- How the drugs are given; for instance, chemo given into a vein (intravenous, or by IV) may cause nausea and vomiting much faster than a drug given by mouth, because the drug given by IV is absorbed faster
- Individual differences – not every person will have the same response to a dose or type of chemo

Some personal risk factors that may make you more likely to have nausea and vomiting include:

- Being female
- Being younger than 50
- Having had morning sickness during pregnancy
- Being very anxious or nervous
- Having ever had motion sickness
- Being prone to vomiting when you are sick
- Having been a non-drinker or light drinker (of alcohol)
- Having had chemo in the past

There's no way to know for sure if you will have nausea and vomiting, but your doctor will consider these things when choosing anti-nausea/vomiting medicines to use with your cancer treatment.

Types of chemo-related nausea and vomiting

There are different types of nausea and vomiting. Nausea and vomiting brought on by chemotherapy (chemo) can be:

- Acute
- Delayed
- Anticipatory
- Breakthrough
- Refractory

Acute nausea and vomiting usually happens a few minutes to hours after the chemo is given. It goes away within the first 24 hours. The worst of this acute vomiting most often happens about 5 or 6 hours after chemo.

Delayed nausea and vomiting starts more than 24 hours after chemo. It's more likely with certain types of chemo, such as cisplatin, carboplatin, cyclophosphamide, and/or doxorubicin. For example, cisplatin-related vomiting is usually worst from 48 to 72 hours after chemo and can last 6 to 7 days.

Anticipatory nausea and vomiting is a learned or conditioned response. It appears to be the result of previous experiences with chemo that led to nausea and vomiting, in which the brain pairs the sights, sounds, and smells of the treatment area with vomiting. Anticipatory nausea and/or vomiting starts as a person prepares for the next treatment, before the chemo is actually given. The brain expects that nausea and vomiting will happen like it did before. About 1 in 3 people will get anticipatory nausea, but only about 1 in 10 will have vomiting before the chemo.

Breakthrough nausea and vomiting happens even though treatment has been given to prevent it. When this happens, you need more or different medicines to prevent further nausea and vomiting.

Refractory vomiting is when you are getting medicines to prevent or control nausea and vomiting, but the drugs are not working. Your nausea and vomiting have become refractory (no longer respond) to the medicines you are getting to prevent it. This means you need more or different medicines to stop the nausea and/or vomiting. Refractory vomiting happens after a few or even several chemo treatments.

The risk of vomiting, by specific chemo drug

For information about a specific drug, visit the *Guide to Cancer Drugs* on our Web site. Some chemo drugs are more likely to cause nausea and vomiting than others. When the drugs are studied, though, vomiting is easier to measure than nausea. Doctors describe the chance of chemo causing vomiting when anti-nausea/vomiting treatment is **not given** by using these 4 risk groups:

- **Minimal vomiting risk:** these chemo drugs cause vomiting in less than 10% of people who do not get anti-nausea and vomiting treatment
- **Low vomiting risk:** these chemo drugs cause vomiting in 10% to 30% of people who do not get anti-nausea and vomiting treatment
- **Moderate vomiting risk:** these chemo drugs cause vomiting in 30% to 90% of people who do not get anti-nausea and vomiting treatment. Medicines to prevent nausea and vomiting should be taken for at least 2 days after the last dose of one of these drugs.
- **High vomiting risk:** these chemo drugs cause vomiting in more than 90% of people who do not get anti-nausea and vomiting treatment. Nausea and vomiting prevention treatment should be taken for at least 3 days after the last dose of one of these drugs.

Please remember that these are the risks for people who do not get effective nausea and vomiting treatment. These are not the risks that you should expect with your treatment. And many of these drugs have a higher risk of nausea compared to vomiting. For example, 40% of the people who take drug X may feel nausea, but only 20% vomit. So drug X would be on the low risk of vomiting list, even though the risk of nausea is higher.

These risk groups can give you an idea of whether you will need prevention treatment with your chemo, what kind of treatment you may need, and how long you may need it. They can help guide discussions between you and your doctor and nurse.

As noted above, chemo drugs are often grouped by how likely they are to cause vomiting when they are given alone, without anti-nausea/vomiting treatment. Here the drugs are grouped into 2 lists. The first list groups the chemo drugs that are given into a vein, or IV. The second list groups the drugs that are taken by mouth (oral chemo). Both lists are arranged from lowest to highest risk of nausea and vomiting.

IV chemo drugs

Minimal risk (less than 10%) of vomiting:

- Alemtuzumab (Campath®)
- Asparaginase (Elspar®)
- Bevacizumab (Avastin®)
- Bleomycin (Blenoxane®)
- Cetuximab (Erbitux®)
- Cladribine (Leustatin®)
- Cytarabine (ara-c, Cytosar®) (very low doses)
- Decitabine (Dacogen®)
- Denileukin diftitox (Ontak®)
- Dexrazoxane (Zinecard®)
- Fludarabine (Fludara®)
- Gemtuzumab (Mylotarg®)
- Interferon alfa (low dose)
- Ipilimumab (Yervoy®)
- Methotrexate (low-dose)
- Nelarabine (Arranon®)
- Ofatumumab (Arzerra®)
- Panitumumab (Vectibix®)
- Pegaspargase (Oncaspar®)
- Peginterferon (Pegasys®)
- Pertuzumab (Perjeta®)
- Rituximab (Rituxan®)
- Temsirolimus (Torisel®)
- Trastuzumab (Herceptin®)
- Valrubicin (Valstar®)
- Vinblastine (Velban®)
- Vincristine (Oncovin®)
- Vincristine, liposomal (Marqibo®)
- Vinorelbine (Navelbine®)

Low risk (10% to 30%) of vomiting:

- Aldesleukin (low-dose)
- Amifostine (Ethyol®) (lower doses)
- Bortezomib (Velcade®)
- Brentuximab vedotin (Adcetris®)

- Cabazitaxel (Jevtana®)
- Carfilzomib (Kyprolis®)
- Cytarabine (Cytosar®, ara-c) (low-dose)
- Docetaxel (Taxotere®)
- Doxorubicin, liposomal (Doxil®)
- Eribulin (Halaven®)
- Etoposide (Vepesid®, VP-16)
- Floxuridine (FUDR®)
- 5-Fluorouracil (5-FU®)
- Gemcitabine (Gemzar®)
- Interferon alfa (IntronA®, Roferon-A®) (moderate-dose)
- Ixabepilone (Ixempra®)
- Methotrexate (moderate-dose)
- Mitomycin (Mutamycin®)
- Mitoxantrone (Novantrone®)
- Paclitaxel (Taxol®)
- Paclitaxel-albumin bound (Abraxane®)
- Pemetrexed (Alimta®)
- Pentostatin (Nipent®)
- Pralatrexate (Folotyn®)
- Romidepsin (Istodax®)
- Thiotepa
- Topotecan (Hycamtin®)

Moderate risk (30% to 90%) of vomiting:

- Aldesleukin (IL-2, Proleukin®) (higher doses)
- Amifostine (Ethyol®) (higher doses)
- Arsenic trioxide (Trisenox®)
- Azacitidine (Vidaza®)
- Bendamustine (Treanda®)
- Busulfan (high doses)
- Carboplatin
- Carmustine (BCNU®) (lower doses)
- Clofarabine (Clolar®)
- Cyclophosphamide (Cytoxan®) (lower doses)
- Cytarabine (Cytosar®, ara-c) (high doses)
- Dactinomycin

- Daunorubicin
- Doxorubicin (Adriamycin®)
- Epirubicin (Ellence®)
- Idarubicin (Idamycin®)
- Ifosfamide (Ifex®)
- Interferon alfa (higher doses)
- Irinotecan (Camptosar®)
- Melphalan (Alkeran®) (higher doses)
- Methotrexate (high doses)
- Oxaliplatin (Eloxatin®)
- Temozolomide (Temodar®)

High risk (greater than 90%) of vomiting:

- AC combination which is doxorubicin (Adriamycin®) given with cyclophosphamide (Cytoxan®)
- Carmustine (BCNU®) (high-dose)
- Cisplatin (moderate to high doses)
- Cyclophosphamide (Cytoxan®) (high-dose)
- Dacarbazine (DTIC®)
- Doxorubicin (Adriamycin®) (high doses)
- Epirubicin (Ellence®) (high doses)
- Ifosfamide (high doses)
- Streptozocin (Zanosar®)

Oral chemo drugs

Minimal to low risk of vomiting

- Axitinib (Inlyta®)
- Bexarotene (Targretin®)
- Bosutinib (Bosulif®)
- Busulfan (low doses)
- Capecitabine (Xeloda®)
- Chlorambucil (Leukeran®)
- Cyclophosphamide (Cytoxan®) (low doses)
- Dasatinib (Sprycel®)
- Erlotinib (Tarceva®)
- Everolimus (Afinitor®)
- Fludarabine (Fludara®)

- Gefitinib (Iressa®)
- Hydroxyurea (Hydrea®)
- Imatinib (Gleevec®)
- Lapatinib (Tykerb®)
- Lenalidomide (Revlimid®)
- Melphalan (Alkeran®) (low doses)
- Mercaptopurine (Purinethol®)
- Methotrexate
- Nilotinib (Tasigna®)
- Pazopanib (Votrient®)
- Regorafenib (Stivarga®)
- Ruxolitinib (Jakafi®)
- Sorafenib (Nexavar®)
- Sunitinib (Sutent®)
- Temozolomide (Temodar®) (low doses)
- Thalidomide (Thalomid®)
- Thioguanine (TG, 6-TG)
- Topotecan
- Tretinoin
- Vandetanib (Caprelsa®)
- Vemurafenib (Zelboraf®)
- Vorinostat (Zolinza®)

Moderate to high risk of vomiting:

- Altretamine (Hexalen®)
- Busulfan (high doses)
- Crizotinib (Xalkori®)
- Cyclophosphamide (Cytoxan®) (high doses)
- Estramustine (Emcyt®)
- Etoposide (Vepesid®, VP-16®)
- Lomustine (CeeNU®) (single day)
- Mitotane (Lysodren®)
- Procarbazine (Matulane®)
- Temozolomide (Temodar®) (high doses)
- Vismodegib (Erivedge®)

So, for example, you can see that high doses of IV cisplatin and cyclophosphamide cause nausea and vomiting in more than 90% of people getting these drugs when no anti-emetic

treatment is given. On the other hand, bleomycin or vincristine cause nausea and vomiting in less than 10% of people who get these drugs IV and do not use anti-nausea/vomiting medicines.

This grouping system is meant to help you when you are talking to your doctor and nurse about your treatment plan. Use these lists to learn what you might expect from the chemo drugs you'll be getting.

You might take more than one chemo drug for your cancer treatment. In general, your doctor should offer anti-nausea/vomiting treatment based on the drug that's most likely to cause nausea and vomiting. This means that if at least one drug on your chemo list is in the high-risk group, you should expect to get at least 2 or 3 different drugs to prevent nausea and vomiting, and you can expect to take them for at least 3 days after treatment. (See the section called "How are nausea and vomiting prevented and treated?" for more on this.)

Radiation therapy-related nausea and vomiting

Whether radiation therapy causes nausea and vomiting depends on:

The part of the body being treated. There's a moderate risk when the area of the body being treated includes a large part of the upper abdomen (belly) – mainly the small intestine (or small bowel), the liver, or the brain.

Treatment with total body radiation therapy (which is used in stem cell transplants), is linked to a high risk of nausea and vomiting if treatment is not given to prevent it. These people may also get high doses of chemo to prepare for transplant, which further raises the chance of nausea and vomiting.

The dose of radiation given. About half of people with cancer who get standard doses (180 to 200 centiGray) of radiation to the abdomen have nausea and vomiting. These problems can start 1 to 2 hours after treatment and can last for hours.

How often the treatment is given. People who get one large dose of radiation have a greater chance of nausea and vomiting than those who get their radiation treatment in smaller doses.

If chemotherapy is given along with the radiation. When radiation is given along with chemotherapy (chemo), the anti-nausea/vomiting treatment used is based on the nausea/vomiting risk of the chemo drugs given.

How are nausea and vomiting prevented and treated?

Prevention of nausea and vomiting is the goal of treatment. Today, many medicines can be used to control nausea and vomiting, and there are many treatment options.

Anti-nausea/vomiting medicine used with chemo treatment

No one drug can prevent or control chemo-related nausea and vomiting 100% of the time. This is because chemo drugs act on the body in different ways and each person responds to chemotherapy and the anti-nausea/vomiting (anti-emetic) drugs differently. To choose the best treatment plan, the doctor:

- Considers how likely the chemo is to cause nausea and vomiting if no anti-nausea/vomiting treatment is given "See "The risk of vomiting, by specific chemo drug" section for more on this.)
- Selects anti-nausea/vomiting medicines based on how much the chemo drugs are known to affect the vomiting center in the brain
- Looks at nausea and vomiting you've had in the past
- Reviews how well any anti-emetic medicines have worked for you before
- Looks at the side effects of the anti-nausea/vomiting medicines
- Uses the lowest effective dose of the anti-nausea/vomiting medicine before chemo or radiation therapy is given
- Uses medicines to try to prevent (not just control) the nausea and vomiting
- Carefully watches how you respond to the anti-emetic treatment
- Makes drug changes as needed to keep you from having nausea and vomiting

The goal is to prevent nausea and vomiting, because it's easier to prevent it than it is to stop it once it starts. To help the drugs work best against chemo-related nausea and vomiting:

- Preventive treatment should start **before** the chemo is given.
- It should **continue** for as long as the chemo is likely to cause vomiting, which may be up to 7 to 10 days after the last dose.

Anti-nausea/vomiting medicines are usually given on a regular schedule around the clock. This means you take them even if you don't have any problems. Sometimes you may be asked to take a medicine on an "as needed" schedule. This means you take the medicine at the first sign of nausea to keep it from getting worse.

Because nausea and vomiting can happen for different reasons, different anti-nausea/vomiting medicines may be used together. In many cases, 2 or more medicines are used. Be sure you know how to take each drug. Ask your doctor or nurse how long after the last dose of chemo you should keep taking the medicine, so that you don't stop taking it too soon.

Each time you start a new cycle of chemo, be sure to tell your cancer team what did and didn't work the last time. If needed, this is the time to make changes to get better control of your nausea and vomiting so that it isn't a problem for the next round. It's also a chance for the doctor to be sure that there aren't other factors besides the chemo adding to your nausea and vomiting.

Anti-nausea/vomiting medicines used for radiation therapy

When radiation treatment is likely to cause nausea and vomiting, your doctor will probably give you medicines to help prevent it each day before you get your radiation treatment. The anti-nausea/vomiting medicines (anti-emetics) may be given by mouth or into a vein, or both. If you have nausea or vomiting, be sure to tell your doctor so that it can be treated.

Anti-nausea/vomiting medicines

There are many different anti-nausea/vomiting (anti-emetic) medicines. Different types of these drugs work better for some people than for others.

To start, you'll get anti-nausea/vomiting medicines based on which chemotherapy (chemo) drugs you are getting. For example, if you are getting a chemo drug that's likely to cause nausea and vomiting, you should get the anti-emetic that has proven to work best in other people who got that same drug. If these medicines do not prevent your nausea and vomiting, it's important to tell your doctor so you can get different medicines. **You might have to try a few different medicines to find the ones that work best for you.** Some of the most common anti-nausea/vomiting medicines are listed below. They are grouped by drug type.

Serotonin (5-HT3) antagonists

Most commonly used drugs in this group:

- Dolasetron (Anzemet®)
- Granisetron (Kytril®)
- Ondansetron (Zofran®)
- Palonosetron (Aloxi®)

These drugs are given before chemo and then often for a few days afterward. Palonosetron is usually given once before starting a 3-day cycle of chemo; its effects last

longer than the other drugs in this group. This also makes palonosetron a good drug to prevent delayed nausea and vomiting.

These drugs are often given along with a steroid.

Some of these drugs are very expensive and you may need pre-approval from your health insurance before they will be covered. Some are available as generic drugs and cost a lot less than the name brands.

Common side effects:

- Headache
- Hiccups
- Diarrhea
- Constipation
- Might change the electric activity in the heart (as seen on an EKG)

Steroids

Most commonly used drugs in this group:

- Dexamethasone (Decadron®)
- Methylprednisolone (Solumedrol or Medrol)

Steroids may be part of your chemo plan, in which case you might not need them (or they may be given at a decreased dose) as part of anti-emetic treatment. They are often given the day of chemo, and maybe for a few days afterwards.

Common side effects:

- Trouble sleeping
- Increased appetite
- Fluid retention; swelling in the face, feet, and hands
- Weight gain
- Increased blood sugar levels

Dopamine antagonists

Most commonly used drugs in this group:

- Droperidol (Inapsine®)
- Haloperidol (Haldol®)

- Metoclopramide (Reglan®)
- Prochlorperazine (Compazine®)
- Promethazine (Phenergan®)

These drugs are often used "as needed" to prevent nausea and vomiting. You take the medicine at the first sign of nausea to keep it from getting worse. These drugs are available in generic forms and tend to be inexpensive.

Common side effects:

- Dry mouth
- Feeling calm or sleepy (sedated)
- Constipation
- Diarrhea
- Sleepiness
- Dizziness (often due to low blood pressure)

These drugs can also cause unplanned movements called *extrapyramidal effects*. These include restlessness, tremors, sticking out the tongue, muscle tightness, and involuntary muscle contractions or spasms. Let your doctor or nurse know right away if this happens. These side effects are more common in younger people and can usually be stopped with other medicines such as diphenhydramine (Benadryl®). In some cases, it may be necessary to stop the drug and try another one.

Anti-anxiety drugs

Most commonly used drugs in this group:

- Lorazepam (Ativan®)
- Alprazolam (Xanax®)

These drugs can help reduce nausea and vomiting by reducing anxiety and helping the person feel more calm and relaxed.

Common side effects:

- Amnesia (trouble remembering events)
- Sleepiness
- Weakness
- Headache

- Dizziness or lightheadedness
- Dry mouth

Cannabinoids

Most commonly used drugs in this group:

- Dronabinol (Marinol®)
- Nabilone (Cesamet®)

These drugs may be used to treat nausea and vomiting from chemo when the usual anti-emetic drugs do not work. They also may be used to stimulate appetite.

Common side effects:

- Mood changes (anxiety, depression, paranoia, euphoria, apathy, and more)
- Confusion, disorientation
- Drowsiness
- Muddled thinking, trouble concentrating, poor memory
- Dizziness
- Change in ability to perceive surroundings
- Poor coordination, clumsiness
- Dry mouth
- Increased appetite
- Low energy
- Feeling like you are moving when you are not (vertigo)

These drugs contain the active ingredient in marijuana. Younger patients and those who previously used marijuana tend to tolerate the side effects better.

NK-1 receptor antagonists

Drugs in this group:

- Aprepitant (by mouth) or fosaprepitant (into a vein) (Emend®)
- Rolapitant (by mouth) (Varubi)

These drugs are especially good for helping to prevent **delayed** nausea and vomiting. They are often given along with a 5-HT3 antagonist and a steroid. Fosaprepitant, which is

infused into a vein (IV), is given on the first day of each chemotherapy cycle. The other forms are taken as pills for 1 to 3 days, starting on the first day of each chemotherapy cycle.

Side effects from these drugs can include feeling tired, weak, or dizzy; hiccups; loss of appetite; indigestion; belly pain; diarrhea; and low white blood cell counts.

These drugs can interact with many other drugs, so be sure your doctor knows about all the medicines you take — even those from other doctors, birth control pills, vitamins, herbs, supplements and drugs you can get without a prescription.

These drugs tend to be expensive, and you might need approval from your insurance company before they will pay for it.

H2 blockers or proton pump inhibitors

These drugs are antacids — they decrease stomach acid. One of these drugs may be used to reduce indigestion and heartburn, which can feel like and sometimes lead to nausea and vomiting. Some commonly used examples are:

- Omeprazole (Prilosec®)
- Lansoprazole (Prevacid®)
- Pantoprazole (Protonix®)
- Cimetidine (Tagamet®)
- Famotidine (Pepcid®)
- Ranitidine (Zantac®)

Side effects are not common, but be sure you know what to watch for. Some possible side effects are diarrhea, headache, dizziness, tiredness, rash, but, again, these are rare.

Many of these drugs can be bought without a prescription and they are often available in cheaper, generic forms.

How are these drugs used together?

Drugs from various groups are used together to prevent nausea and vomiting. For instance, if you are getting chemo that includes a high-risk drug (See "The risk of vomiting, by specific chemo drug" in the section called "Chemotherapy-related nausea and vomiting"), you might get this type of anti-emetic treatment: a 5-HT3 antagonist, dexamethasone, an NK-1 receptor antagonist, and maybe an H2 blocker and lorazepam.

If you are getting chemo that has a low risk of causing nausea and vomiting you may be treated with a steroid the day(s) you get chemo and then be given a prescription for a dopamine antagonist in a pill form that you take when you need it — usually at the first

sign of nausea. You may also be given an H2 blocker to take every day and lorazepam to take if needed.

Talk to your doctor, nurse, and/or pharmacists about the drugs you're given. Be sure you understand how and when to take each of them. Also know how they work, what you can expect them to do, and what side effects you should watch for.

How are anti-nausea/vomiting medicines given?

Anti-nausea and vomiting treatment is started before chemo is given and continued for as long as nausea and vomiting can be a problem. (See the section called "How are nausea and vomiting prevented and treated?" for more on how the drugs are chosen.)

Be sure to let your doctor know if you are still having problems despite treatment. There's no reason for you to suffer these side effects. There are many drugs that can be used to prevent and treat nausea and vomiting.

If the drugs used first don't work, your doctor can switch to another drug within a group, add a drug from another group, or try other drugs. Another option is to give the drugs a different way (by a different *route*). For instance, you may be able to take them:

- Through an IV, or as a liquid put into a vein
- By mouth as a pill or liquid you swallow
- As a tablet that dissolves under your tongue
- As a suppository
- Through a patch that sticks to your skin

Your doctor will consider these things when deciding which route should be used to give your anti-emetics:

- How bad your nausea and vomiting is
- The easiest way for you to take the medicine
- What you prefer
- Your medical insurance coverage (many of these drugs are very expensive, especially in IV form)

Taking pills by mouth is often the best, easiest, and cheapest way to prevent nausea and vomiting. But if you're already vomiting, or you can't swallow and keep things down, many of these medicines can be given in other ways. Talk with your doctor about other ways you can take the medicine you need if you can't take it as a pill.

How medicine is given does not change how well it works to prevent or control nausea and vomiting. But it often affects how quickly it starts working. Drugs that are given into the vein or under the tongue usually start working faster.

Talk to your doctor if the drugs cost more than you can afford. There may be other cheaper drugs that work as well. There are also programs to help you pay for certain drugs. (Call us for more on this.)

Other treatments for nausea and vomiting

Although anti-nausea/vomiting medicines (anti-emetics) are the main treatment for nausea and vomiting, some non-drug treatments can also be used. These involve using your mind and body with the help of a qualified therapist.

Non-drug treatments may be used alone for mild nausea, and are often helpful for anticipatory nausea and vomiting. These methods can be used along with anti-nausea/vomiting medicines for a person who's taking chemo drugs that are likely to cause nausea and vomiting. If you would like to try one of these methods, ask a member of your health care team to refer you to a therapist trained in these techniques.

All of these methods try to decrease nausea and vomiting by helping to:

- Relax you
- Distract you from what's going on
- Help you feel in control
- Make you feel less helpless

Here are some non-drug treatments that have helped some people. Please contact us if you would like more details on any of these methods. Most of them have few or no side effects. And with the proper training, nearly anyone can use most of these.

Self-hypnosis

Self-hypnosis was the first technique used to make behavior changes to control nausea and vomiting. It creates a state of intense attention, willingness, and readiness to accept an idea. It's been shown to work very well with children and teens.

Progressive muscle relaxation

Progressive muscle relaxation (PMR) teaches a person to relax by progressively tensing and releasing different muscle groups. It's been used to decrease the nausea and vomiting caused by chemo.

Patients who learn PMR often go on to use this method as a way to cope with other stresses, too. It's also used to help with nervousness, pain, anger, headaches, and depression.

Biofeedback

Biofeedback helps people reach a state of relaxation. Using biofeedback, a person learns to control a certain physical response of the body, such as nausea and vomiting. This is done by tuning in to the moment-to-moment body changes that are linked to the physical response. For example, biofeedback can be used to prevent skin temperature changes, such as those that often happen before nausea and vomiting starts. Biofeedback alone has not been found to work as well as for nausea and vomiting as the combination of biofeedback and progressive muscle relaxation.

Guided imagery

Guided imagery lets people mentally remove themselves from the treatment center and imagine that they are in a place that's relaxing for them. The place can be a vacation spot, a room at home, or some other safe or pleasant place. While trying to imagine what they usually feel, hear, see, and taste in the pleasant place, some people can mentally block the nausea and vomiting.

Systematic desensitization

Systematic desensitization helps people learn how to imagine an anxiety-producing situation (such as nausea and vomiting) and reduce the anxiety related to the situation. In most cases, what a person can imagine without anxiety, he or she can then experience in the real world without anxiety.

Acupuncture or acupressure

Acupuncture is a traditional Chinese technique in which very thin needles are put into the skin. There are a number of different acupuncture techniques, including some that use pressure rather than needles (acupressure). Some clinical studies have found it may help treat anticipatory nausea.

Music therapy

Specially trained health professionals use music to help relieve symptoms. Music therapists may use different methods with each person, depending on that person's needs and abilities. There's some evidence that, when used with standard treatment, music therapy can help to reduce nausea and vomiting due to chemo. It can lower heart rate and blood pressure, relieve stress, and give a sense of well-being.

Eating right can help you get through cancer treatment

Nausea and vomiting can affect how much you eat and what you eat. And good nutrition is important for people being treated for cancer. Many factors related to the illness itself, as well as cancer treatments, can make you not feel like eating and may affect your body's ability to take in food and use nutrients.

Nutritional needs vary during cancer treatment. Some people have trouble getting enough protein and calories during treatment; others gain weight. Your health care team can help you come up with nutrition goals and find an approach to eating that meets your needs. Eating healthy foods while going through cancer treatment can help you:

- Feel better
- Keep up your strength and energy level
- Stay at a healthy weight
- Keep up your body's store of nutrients
- Better handle treatment-related side effects
- Lower your risk of infection
- Recover and heal as quickly as possible

Eating well means eating many different kinds of foods that will give you the nutrients you need for healing. We have a lot of information on nutrition during cancer treatment. Visit us online or call us to learn more.

Some patients need to be treated at a center far from their home, which can make it hard for them to eat well. Most treatment centers have some type of kitchen space. Patients can use this area to store and prepare frozen foods, soups, single servings of fruits, puddings, gelatin, ice cream, or cereals. If there's no kitchen, bring food items that do not need refrigeration, such as single serving packs of canned fruit, gelatin, puddings, cheese or peanut butter crackers, granola bars, or cereal. A nurse or social worker might be able to give you ideas about places to stay and eat while you are getting treatment.

Tips for people getting chemo

Here are a few tips that may help reduce nausea and vomiting if you are getting chemo.

- On the days you get chemo, make sure you have had something to eat. Most people find that a light meal or snack before chemo is best.
- In most cases, chemo is given on an outpatient basis, such as in an infusion center or a doctor's office. Getting chemo can take a few minutes or many hours. Plan ahead and bring a light meal or snacks with you. Many treatment centers have refrigerators and microwaves you can use.
- Feeling tired or lacking energy (fatigue) is very common when getting chemo. There are some things you can do to deal with fatigue, such as set priorities, pace yourself,

ask others to do chores, plan activities when you have the most energy, know your limits, and eat balanced meals. See our information called *Fatigue in People With Cancer* to learn more.

- Don't be too hard on yourself if side effects make it hard to eat. Try eating small, frequent meals or snacks. Choose the foods that appeal to you the most. Your taste can change on an almost day-to-day basis when you are getting cancer treatment.
- Make the most of days when you feel well and your appetite is good. Always try to eat regular meals and snacks but listen to your body. Never force yourself to eat something that you don't want, or if you feel full.
- Ask family and friends for help shopping and cooking. If you don't have help, think about having meals delivered to your home or maybe having lunch at a local community or senior center. Contact community assistance organizations, area churches, or call us at 1-800-227-2345 for more ideas.
- Most side effects last a short-time and go away when treatment is over. If symptoms last, you should tell your health care team. Nutrition-related side effects should be dealt with right away to help you keep up your weight and energy.

Tips for people getting radiation therapy

The types of side effects you have during radiation therapy depend on the part of your body getting radiation, the size of the area being treated, the total dose of radiation, and the number of treatments. The list below shows different parts of the body that may be treated and the possible side effects that may make it hard to eat.

- **Brain, spinal cord:** nausea, vomiting
- **Tongue, voice box, tonsils, salivary gland, nose, throat (pharynx):** sore mouth, trouble swallowing or pain with swallowing, change in or loss of taste, sore throat, dry mouth, thick saliva
- **Lung, esophagus, breast:** trouble swallowing, heartburn
- **Large or small intestine, prostate, uterus, cervix, rectum, pancreas:** loss of appetite, nausea, vomiting, diarrhea, gas, bloating

Eating well is important both during and after treatment. If side effects develop or if the anti-nausea/vomiting medicines are not working, tell your health care team.

Here are some eating tips you can try if you're getting radiation therapy:

- Try to eat something at least an hour before treatment rather than going to treatment with an empty stomach.
- Bring food or nutrition supplements to eat or drink on the ride to and from treatment if you must travel a long distance for treatment each day.

- Eat small meals every 2 to 3 hours. Ask friends and family members to help prepare meals, do the shopping, and choose the foods and drinks you enjoy most.
- Don't expect to have the same side effects as someone else being treated for cancer in another part of the body. Even people with the exact same treatments have different degrees of side effects.
- Get to know other cancer patients and talk with them about their experiences, or join a support group. Other patients can be a great source of information and support.

Managing side effects that make it hard for you to eat right

If you're having trouble eating and/or you're on a special diet (such as for diabetes or heart disease), your food restrictions might be relaxed during cancer treatment. But you should speak with your health care team before making any changes. Here are some things you can do to try to eat as well as possible during treatment:

- Try to eat small meals every 2 or 3 hours rather than eating 3 large meals.
- Add extra calories and protein to foods. Liquid or powdered nutrition supplements are handy during this time. Try different brands and flavors to find out which ones taste best and work best for you. Your doctor, nurse, or a dietitian may be able to tell you more about types of products available and may have samples you can try.
- Try eating most of your food during the time of day when you are best able to eat. Many people find that breakfast time is best.
- Let your health care team know if eating is a problem. Ask a dietitian to give you more tips to help with eating.
- Let your health care team know when anti-nausea/vomiting medicines don't work.

There are also things you can do to help manage or reduce your nausea and vomiting. Here are a few suggestions:

- Eat foods and drink beverages that are "easy on the stomach" or made you feel better when you had the flu or morning sickness. These are often things like ginger ale, bland foods, sour candy, and dry crackers or toast.
- Do **not** force yourself to eat when you feel nauseated.
- Limit your fluid intake during meals.
- Eat food cold or at room temperature.
- Have someone else make the meals if you have nausea.
- Keep your mouth clean; if you vomit, clean your mouth after each time.
- Wear loose fitting clothes.

- Get fresh air with a fan or open window.
- Limit sounds, sights, and smells that cause nausea and vomiting.
- Call your doctor or nurse if your nausea or vomiting is not prevented or controlled with the medicines you have.

You can get more information on eating during cancer treatment in *Nutrition for the Person With Cancer During Treatment: A Guide for Patients and Families* read it online or call us to have a free copy sent to you.

Nausea and vomiting can be unpleasant side effects of cancer treatment. But they should not be accepted as a part of cancer treatment – they can be controlled and even prevented. Talk to your health care team if you are having nausea and vomiting. Be willing to work with them to find the right anti-nausea/vomiting medicines for you.

To learn more

More information from your American Cancer Society

Here is more information you might find helpful. You also can order free copies of our documents from our toll-free number, 1-800-227-2345, or read them on our Web site, www.cancer.org.

Caring for the Patient With Cancer at Home: A Guide for Patients and Families (also in Spanish)

Nutrition for the Person With Cancer During Treatment: A Guide for Patients and Families (also in Spanish)

A Guide to Chemotherapy (also in Spanish)

Understanding Radiation Therapy: A Guide for Patients and Families (also in Spanish)

You can also get more information on each drug used to treat cancer, as well as drugs used to treat nausea and vomiting, by calling us or visiting our Web site.

Books

Your American Cancer Society also has books that you might find helpful. Call us at 1-800-227-2345 or visit our bookstore online at www.cancer.org/bookstore to find out about costs or to place an order.

National organizations and Web sites*

Along with the American Cancer Society, other sources of information and support include:

Meals on Wheels America
Telephone number: 703-548-5558
Web site: www.mealsonwheelsamerica.org

A group of programs that provide home-delivered meals. Some programs may provide other services such as transportation, education, information, and case management. The Web site is the best way to find out if there's a program near you. Costs/fees vary depending on your age and where you live.

National Cancer Institute
Toll-free number: 1-800-422-6237 (1-800-4-CANCER)
TTY: 1-800-332-8615
Web site: www.cancer.gov

Offers information on cancer treatments, symptoms, and coping. More on nausea and vomiting can be found at www.cancer.gov/cancertopics/pdq/supportivecare/nausea/Patient

CancerCare
Toll-free number: 1-800-813-4673
Web site: www.cancercare.org

Provides information and free professional support by phone and online to people with cancer, their loved ones, and caregivers.

**Inclusion on this list does not imply endorsement by the American Cancer Society.*

No matter who you are, we can help. Contact us anytime, day or night, for cancer-related information and support. Call us at **1-800-227-2345** or visit www.cancer.org.

References

Manufacturers' Product Information. Accessed directly from companies and also online at www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm on February 13, 2013.

National Cancer Institute. Nausea and Vomiting PDQ® last modified 9/28/12. Accessed at www.cancer.gov/cancertopics/pdq/supportivecare/nausea/Patient on February 11, 2013.

National Comprehensive Cancer Network. *Antiemesis. NCCN Clinical Practice Guidelines in Oncology – v.4.2009.* Accessed at www.nccn.org/professionals/physician_gls/PDF/antiemesis.pdf on November 16, 2010.

National Comprehensive Cancer Network. *Antiemesis. NCCN Clinical Practice Guidelines in Oncology – v.1.2013.* Accessed at www.nccn.org/professionals/physician_gls/pdf/antiemesis.pdf on February 11, 2013.

Schwartzberg LS. Chemotherapy-induced nausea and vomiting: clinician and patient perspectives. *J Support Oncol.* 2007;5(2 Suppl 1):5-12.

Wickham R. Evolving treatment paradigms for chemotherapy-induced nausea and vomiting. *Cancer Control*. 2012;19(2 Suppl):3-9.

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